

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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NOVEMBER 15, 1942



Buxus Sempervirens Arborescens

**Make Sales of Christmas Greens
Pest Control in the Nursery
Landscape Planning and Planting
War Control Orders**

Editorial

CONSERVING PAPER.

The changed appearance of the reading pages of this issue is due to the fact that the type is set "solid" as the printers say, instead of with a small amount of space between the lines as hitherto. Though the former style was to be preferred as more attractive and more easily read, the change is made in the interests of wartime conservation, now gradually being extended to printing papers. The new form of typesetting adds ten per cent to the number of lines in a column, so that subscribers will be provided approximately the same amount of reading matter in a 36-page issue as was formerly presented in a 40-page issue.

With continuing increased support from both advertisers and subscribers, it is expected that the same generous editorial program can be carried on. Indeed, by careful editorial selection and attention to make-up, the intention is to give readers more for their money from season to season, as hitherto, unless war restrictions are more drastic than now proposed.

FARM LABOR SUPPLY.

The War Manpower Commission apparently has recognized that the solution of the farm labor problem is not to be found by raising wage rates paid agricultural workers to the much higher levels prevailing in war industries. Instead, more direct measures to keep labor in essential agricultural pursuits are to be taken.

The commission has drafted directives to encourage dairy, livestock and poultry workers to remain in their jobs by according a favored position to those who do so. The Selective Service Administration has been directed to grant these classes of farm workers occupational deferment, with the understanding that the men would lose such deferred status if they leave farming for other work. The army and navy have been asked to stop recruiting these farm workers, and factories working on government orders are to be urged not to employ skilled farm workers without the approval of the United States Employment Service.

These measures, similar to those taken in the mining and lumber industries, should go a way in keeping

agricultural workers in their jobs, without actually withdrawing their freedom of movement. The question arises whether such measures will prove adequate, particularly with regard to agricultural workers with family dependents who would expect to receive draft deferment regardless of their occupational status.

STAY IN BUSINESS.

Some proprietors of small nurseries or landscape firms—as well as a few of moderate size—have questioned whether they should attempt to stay in business during the war, in view of the increasing government restrictions and business difficulties, or whether they should close up for the duration and seek employment at the best wages they can obtain in war work.

There are several questions wrapped up in that one. One concerns the individual himself. First, we must assume that he is exempt from the draft and not skilled in war work—otherwise, Uncle Sam will probably answer the question for him. Then the question arises, whether the individual can or cannot derive a living from his business even if his staff is reduced to the point where he may have to act as superintendent of the men or even foreman of a small crew. Such individuals usually started in overalls, and there need be no loss of pride if they don them again, as a good many of us will be doing ere long.

In most communities there is more work for the nurseryman than he can handle at the present time with his reduced crew of experienced men. Planting jobs are not large, but there seem to be plenty of them, and there are more service calls than in the past, because estates have lost their gardeners and handy men are scarce. Indeed, the nurseryman is fortunate in that he still has plenty of merchandise to sell, and is not forced into a wholly service business, as the dealers in automobiles, refrigerators, oil burners and radios have been.

More important than the question as to the individual's present livelihood is the future of his own business. The other day a vice-president of the General Electric Co. declared to a group, "I ought to advise you to sell your General Electric stock if the company were not planning for post-war operations." Manufacturers of the devices mentioned above and of other lines restricted by the war face

a serious problem because of their present loss of public contact while they are working on war orders, and they are much concerned as to how and when they will be able to resume normal operations after the end of hostilities. From the point of view of your business, if you close it up for the duration and lose all contact with your customers, how and when will you resume later? The proprietor's business is his future. We can stand handicaps and hardships for the sake of our country's victory if we can hold fast to the opportunity for the future which an established business holds. It would look like a shortsighted policy to close up for the duration unless individual factors or local circumstances leave no choice.

MEETINGS WILL BE HELD.

The increasing number of problems which face nurserymen on account of war control measures and the changes in the economic life of the country due to war conditions have increased, rather than decreased, the importance of meetings of state associations during the winter as a means of helping their members through the interchange of ideas and the information available through well posted speakers.

The threat of drastic curtailment of all kinds of meetings and events calling for the assembly and transportation of considerable numbers of persons seems to have been alleviated. The Chicago Association of Commerce, after months of consultation with Washington agencies, has been assured that the government will not interfere with the holding of trade shows, marketing events, educational gatherings and other meetings which promote the national welfare. The formulation of this policy by the Office of Defense Transportation and the War Production Board was recently disclosed.

Even some of the big spring flower shows will be held, notably that of the Massachusetts Horticultural Society, at Boston, next March. This is made possible because of the society's ownership of the exhibition building, Horticultural hall. The big spring shows in New York, Chicago and some other places will be prevented because of inability to secure a suitable building in which to house the exhibitions, military agencies having taken over the places where the shows previously were held.

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Recommendations for a New Salesman

Your salesman is welcome—is invited—is paid to come!
 He is well introduced—in good company—vouched for.
 He calls when the prospect is not busy—is given full attention.
 He reaches nearly 4,500 prospects—so is sure to make enough sales to please you.
 That is, if your salesman is an advertisement in the American Nurseryman.

"We received very gratifying results from our advertisement run in the November 1 issue."—Storrs & Harrison Nurseries, Painesville, O., November 10, 1942.

"May we congratulate you upon the high quality of your publication."—E. D. Smith & Sons, Ltd., Winona, Ont., Canada, November 7, 1942.

Make Sales of Christmas Greens

Supplies of Christmas trees from the north woods will be curtailed this year, it is already reported, because of the shortage of cutters and transportation. Collectors of other forms of holiday evergreens from the wilds will have smaller quantities to offer, also.

So the nurseryman has an opportunity better than usual this year to turn the dull month of December into a period of profit. He will need to plan at once, as the demand begins right after Thanksgiving day. Then business firms and municipalities plan store and street decorations, using many yards of roping and gigantic wreaths. Then the public wants, besides trees, green sprays and cones for home decorations and for cemetery arrangements.

Where a nurseryman has a store or other sales outlet in town or close enough to draw the public, he is able to work up a considerable retail business himself. An advertisement in the local newspaper about December 1 will bring in the customers, or high school boys and girls can be employed to canvass their neighborhoods for orders on a commission basis.

Where this course does not recommend itself to the nurseryman, he can develop a sizable business by supplying retail florists direct, or through wholesale florists' supply houses, with bundles of cut branches of various kinds of foliage, cones or cut twigs of deciduous shrubs with colored bark or berries, either in their natural form or prepared by spraying in silver and gold.

Some nurserymen grow special blocks of conifers for Christmas trees. According to figures of the federal Department of Commerce, balsam fir accounts for sixty per cent of the marketing, spruce for twenty-five per cent, Douglas fir for ten per cent and hemlock, cedar, pine and others cut locally for the remaining five per cent. If you have blocks of overgrown evergreens, or some that need thinning out, they may be cut at this time before they lose their ornamental value. The most shapely can

be used for Christmas trees, and those which already have got out of hand may be cut up for their branches.

Conifers in smaller sizes can also be thinned out, for use in tubs, in porch boxes and in urns. If you have a large supply of seedling evergreens coming on, you might furnish some of them to florists for variety in Christmas plant arrangements, in place of the ubiquitous cacti and succulents.

Great quantities of foliage material are used by florists at Christmas for wreaths, roping, baskets, etc. Cut pine, hemlock and arborvitae are needed.

Even broad-leaved evergreens are useful, and if plants of laurel, holly, boxwood, leucothoe and mahonia



need trimming, the florists near by will probably welcome such material to add variety to their holiday arrangements.

In an English trade paper last year a nursery firm across the water offered cut evergreens for wreath making, including not only holly and laurel, but retinospora, yew, cupressus, gaultheria and Berberis aquifolium.

One large nursery firm located some distance from any town rents a store in the downtown section of a moderate-size city near by, just after Thanksgiving, to offer Christmas decorations of all kinds. Much of this material is of the same character to be found in florists' shops, gift shops and department stores, but the unusual greens from the nursery premises draw the public—plumes of Pfitzer's juniper, spires of Mugho pine, pendulous sprays of retinospora, besides sprays of spruce, hemlock, cedar and pine. Cones in many sizes and forms, bought from supply firms, added to the variety.

Another nurseryman who supplies cut evergreens to florists, rather than retailing them himself, has a big air compressor set up in his packing shed and, with a long hose and an air brush, a man keeps busy silvering or gilding foliages and trees. Pine or spruce given a metallic coat go faster than the time-honored metallic-coated ruscus. Cones similarly silvered and gilded are used in decorations, in table arrangements and the

tiny spruce cones even in corsages.

Any nurseryman who is not acquainted with the many types of greens supplied in large quantities to florists should visit a wholesale cut flower market in a large city and look in the storage boxes to see the supplies laid away.

How you develop your Christmas business will depend upon your own facilities and the business prospects in your locality. There is an opportunity at Christmas of which so far only a few nurserymen have taken advantage.

HORMONE SPRAYS RETARD HOLLY LEAVES' DROP.

Hormone sprays, developed to retard preharvest drop of apples and pears, help to keep holly leaves from dropping after being cut for the Christmas trade. Such preparations greatly reduce leaf drop even when holly is packed wet or exposed to ethylene.

Regardless of whether holly is shipped loose, in wreaths or in special packages, the leaves drop if there is too much moisture, particularly at high temperatures. Complete defoliation often occurs in from seven to ten days when holly is kept between 70 and 80 degrees, especially in tight packages which retain the moisture.

Holly also drops its leaves in the presence of minute quantities of ethylene gas, which is given off by a number of fruits. In concentrations as low as one part of ethylene to 200,000 parts of air, defoliation may take place within three or four days.

John A. Milbrath and Henry Hartman, of the Oregon agricultural experiment station, report that naphthaleneacetamide and naphthaleneacetic acid, applied to holly, retarded defoliation over long periods, even when the holly was packed wet or exposed to ethylene contamination.

"Laboratory experiments have been conducted with hormone sprays and a number of trial shipments have been made," they report. "From the results of these tests it appears that



hormones may be of considerable value in the commercial handling of holly, and shippers are advised to give them a trial, at least, in a limited way."

The scientists point out that hormones in the pure form are used in such minute quantities that they are difficult to measure without precision instruments. Use of the commercial products commonly sold for prevention of fruit drop is therefore recommended. The materials give best results when used at about twice the strength recommended for prevention of fruit drop.

Holly is not injured by hormone sprays unless they are applied in concentrations much higher than recommended. Dipping or submerging seems to be the most satisfactory application. The holly can be placed in wire baskets or slotted crates, dipped in a vat of the solution, and set out immediately on a drainboard which will return the excess solution to the container. The holly should not be allowed to soak. The same solution can be used for several days, until it accumulates dirt and other foreign matter which may be deposited on the leaves.

The Oregon report says there is still some question as to how much moisture at the time of packing can be tolerated on holly treated with hormones. It adds: "The experiments thus far indicate that considerable moisture is permissible. Holly leaves, in fact, have remained in a fresher condition when packed wet, and holly berries have withstood considerable moisture without injury. For the time being, however, it appears best at least to drain the holly prior to packing.

"A word of caution should be sounded regarding the use of hormones in combination with oils or spreaders. When it is necessary to treat holly for scale and insect control, the representatives of the manufacturers should be consulted before attempting to use hormones in the oil bath. At present it appears best to use two separate baths, one for the oil and the other for the hormone, in which case the hormone bath should be used last."

LANDSCAPE DIRECTOR.

George Siebenthaler, of the Siebenthaler Co., Dayton, O., has been appointed director from region 3 for the National Landscape Nurserymen's Association, as the unanimous selection of members from the region. He will serve in place of Arthur Palmgren, Glen View, Ill., who recently entered the country's service.

BUXUS SEMPERVIRENS.

One of the oldest plants in cultivation is the common box, *Buxus sempervirens*. The species is native to southern Europe, northern Africa and western Asia. Many clones have been grown and used by the trade since its early introduction. The clones vary greatly in size, from those two to three feet in height to those that may reach twenty-five to thirty feet. Considerable variation, likewise, exists in shape and color of foliage.

It is not possible in these brief comments to discuss in detail all the various clones. Among the best according to size, from the smallest to the largest are: Myrtleleaf common box, having narrow oblong to oval leaves a little more than one-half inch long.

Truedwarf common box, the clone that has been the standard for edging



Eugene F. Fowler.

and low hedges in the southern gardens for many years. The leaves are oval or slightly obovate and highly fragrant.

Handsworth common box, an upright, compact type with rounded dark bluish-green leaves.

Willow common box, one of the most satisfactory, possessing a compact, formal habit of growth and relatively narrow oblong, glossy green leaves.

Truetree common box, a tall shrub or small tree of informal or, with clipping, formal growth and dark green elliptic leaves.

Two other types, probably clones, that have been in the trade, but are not listed in "Standardized Plant Names," that seem worthy of mention are the Kingswood common box

and the Lynn Haven common box. The Kingswood common box is described as being a compact, depressed-globose plant, broader than high, with elliptic to obovate leaves of one-fourth to one-half inch long. It is of exceedingly slow growth and very hardy. The Lynn Haven common box appears to be a compact form with dark green leaves, relatively narrow in shape. Growth appears to be relatively slow and the plant will probably attain a height similar to the Handsworth common box.

Most of the clones of the common box are on the border line for hardiness in Ohio. They are hardy in zone 6, possibly some in zone 5. The boxwoods are best in our territory when not exposed to sweeping winds and when given partial shade. Plants should be provided with ample moisture. This is especially important during the fall months before the ground freezes. A few pests are serious in some sections, but space is not available for their discussion here. Propagation is by cuttings.

Uses of the common box clones are numerous because of the variation in size. They can be used for edging, dwarf hedges, larger hedges, formal entrance plants and as specimens elsewhere in the foundation planting, beds or borders.

L. C. C.

EUGENE F. FOWLER.

Eugene F. Fowler, manager and owner of the Fowler Nurseries, Newcastle, Cal., is a past president of the California Association of Nurserymen and at present is vice-president of the Superior California Nurserymen's Association. He was associated for twenty-two years with the Silva-Bergtholdt Nurseries, until 1931, when he started in business for himself. For the past eleven years he has been also the manager of the Newcastle Fruit Co., wholesale shipper of fresh deciduous fruits. He is a native son of California.

DREER TO REORGANIZE.

The petition of Henry A. Dreer, Inc., Philadelphia, Pa., for reorganization under chapter X of the bankruptcy act has been approved in the District court for eastern Pennsylvania, and an order was filed appointing Raymond Walsh and Norman Klauder as trustees and authorizing them to operate the business pending further order of the court. A hearing will be held November 23 at which objection may be made to the retention of the trustees, according to notice of the court.

Pest Control in the Nursery

By John B. Steinweden

A discussion of nursery pest control probably should begin with a few thoughts on the necessity for such pest control. From the nurseryman's standpoint there are three main needs for pest control: First, to prevent injury to the growing nursery crop; second, to enable the nurseryman to sell clean nursery stock to his customers; third, to produce nursery stock clean enough to pass quarantine inspection.

Let us consider the first need, the necessity of pest control to prevent injury to the growing nursery crop. Common examples are:

Red scale on citrus nursery stock when the scale becomes so thick that the bark is cracked and the trees begin to decline.

Black scale on English holly when the foliage becomes black and sooty.

Fuller's rose weevil on citrus, avocado and various ornamentals when the foliage is chewed by this beetle.

Thuja aphid on thujas, junipers and Lawson cypress when the inside foliage turns brown by the work of this brown aphid.

Damage such as this requires a sure, quick control which will knock down the pest population in a hurry and prevent serious injury or disfigurement of the crop. The nurseryman knows that something must be done, and the need for control does not have to be pointed out by an inspector or an insecticide salesman.

Now let us consider the second need of nursery pest control—pest control to enable the nurseryman to sell clean nursery stock to his customers. Nearly all nurserymen want to satisfy their buyers and do not want to sell some undesirable pest along with their product. Scale insects probably are associated more closely with their hosts than other pests and often are spread by the movement of plants.

For example, red scale on citrus trees can cause trouble and expense in the new orchard for years to come, especially when the trees are planted in a district relatively free of red scale. Also, red scale can damage ornamental trees and citrus trees in yard plantings.

Here are a few other examples of infested nursery stock which will often result in complaints from purchasers: Black scale on gardenias and English holly; olive scale on orna-

Direct saving in labor can be made by careful attention to pest control. The benefits to be derived by so doing and more efficient methods to that end were offered in this talk presented at the recent convention of the California Association of Nurserymen by the assistant supervisor of nursery service in that state.

mental shrubs and deciduous fruit trees; camellia parlatoria scale on camellias.

The cleanup of nursery stock for sale requires practical control measures to insure a commercially clean product, and the nurseryman wants to do this as easily and as cheaply as possible.

Now let us look at the third need for nursery pest control, that of cleaning up nursery stock to pass quarantine inspection. This is a touchy subject, as quarantine rejections are not popular with nurserymen and are often costly. Pest control to prevent quarantine rejection requires 100 per cent cleanup of the pests concerned so that there is no question of life or death. This is a harder problem than merely cleaning up plants for sale or to prevent injury.

Thus we see that the needs of nursery pest control are obvious, but the application of practical remedies is what we are really after.

To begin with, a general sanitation program is necessary. Clear out and destroy old infested and diseased plants not worth the cost of cleaning up. Destroy weeds in corners of the lath house and under benches in greenhouses where mealy bugs, white flies and red spiders can build up. Benches and soil should be sprayed with Diesel oil, and empty greenhouses fumigated with heavy schedules of cyanide.

Be sure that stock plants from which cuttings and budwood are taken are clean; otherwise pests are propagated along with nursery stock. We often see cuttings of geraniums with Mexican mealy bug, euonymus with nigra scale, junipers with juniper scale and camellia cuttings with camellia scale.

Call on your local inspector to inspect incoming shipments, and watch

plants left to "board" at the nursery, because they may carry pests.

Move against ants, especially the Argentine ant, which scatters and protects scale insects, mealy bugs and aphids. Anthills can be treated with calcium cyanide dust or solutions of pyrethrum extract, while containers with Argentine ant poison should be cleaned and refilled frequently.

Plants which have been treated should not be put back into infested greenhouses or lath houses, or reinfestation will soon follow.

Sad to say, some of the spraying done in nurseries is not efficient enough to do any material good and sometimes is merely a case of going through the motions. Small hand sprayers are often used and the spray material is not properly mixed and agitated. There are several requirements for successful spraying, namely:

1. Proper application of the spray material with good equipment, sufficient pressure and careful coverage of the leaves, stems and trunks of the plants.

2. The use of the correct material. Most nurserymen know when to use a stomach poison and when to use a contact spray; so we won't go into that except to mention a few specific materials a little later.

3. The third requirement for successful spraying is the timeliness of application, which means spraying at the most vulnerable time in the insect's life history.

For example, the oyster-shell scale is difficult to kill during the winter months, as it overwinters in the egg stage, which is resistant to sprays. However, after the eggs hatch, about the middle of May and later, the young stage is easily killed by an oil spray plus nicotine.

As another example of timeliness of application, black scale should be sprayed after the hatch is completed and before the tough rubber stage is reached, usually July to January.

Certain pests like the olive scale are very resistant to oil sprays and the University of California has found that three per cent dormant oil at 600 pounds' pressure was necessary to kill the olive scale on olive trees.

Oil sprays have been used for years against scale insects and mealy bugs, but have been improved in recent years by the addition of toxicants, usually rotenone and pyreth-

rum; one per cent light summer oil emulsion plus rotenone-pyrethrum extract has been used successfully on many fairly tender plants for mealy bugs and certain scales. On more tender greenhouse plants, the rotenone-pyrethrum alone, at strengths from 1 part to 800 to 1 part to 400 with water, has been used for aphids, white flies, mealy bugs and some of the chewing insects. Now that the use of rotenone and pyrethrum has been curtailed, substitutes will have to be used.

Some of the organic sprays may come to the front during the war. There are several thiocyanates on the market which are used as contact insecticides and are especially good against mealy bugs, when properly applied.

Tartar emetic and sugar, of course, are well known for the control of citrus thrips and gladiolus thrips. The university has advocated the substitution of honey or sorghum syrup for sugar at one and one-half pints per pound of tartar emetic used.

For the control of red spiders on greenhouse plants, Professor Tomkins and Professor Ark, of the University of California, recommend the use of two per cent phthalic glyceryl alkylidene resin in water which is sold as B-1956 spreader.

For the control of the black vine weevil on azaleas and camellias, Scott has recommended recently a spray consisting of four pounds of natural cryolite and one gallon of a medium oil emulsion in 100 gallons of water. This spray should be applied in May and June to kill the adult weevils, which feed on the foliage at night. The larvae girdle the upper roots and lower trunk and are difficult and impractical to control in this stage.

The successful dusting of nursery stock requires the same careful application as spraying and must be done when there is a minimum of wind. Mechanical and power dusters are used successfully on large-scale operations such as the application of sulphur for grape mildew, calcium cyanide dust for grape leaf hopper and sulphur for citrus thrips. We have had good luck with nicotine dust against thuja aphids when it was applied with an electric power blower. This machine blows the dust down into the twigs where the aphids are found and is more effective than oil and nicotine sprays.

Sulphur dust is also effective against some of the red spiders as well as the broad mite which sometimes attacks ornamental peppers and dwarf ivy.

Dipping is often advised for treat-

ing nursery stock, usually for applying a contact insecticide against scale insects, mealy bugs or aphids on bare-root dormant stock or on citrus stock.

The mixtures or solutions must be well agitated and not allowed to settle out. This is especially true in the case of oil dips. The emulsion should not be allowed to break, or a layer of straight oil will form on the top of the dip and the plants will be burned.

We have not found dips very efficient when used in a barrel or bucket as the average nurseryman often uses them. For example, a dip of two per cent medium oil emulsion plus nicotine killed only sixty-seven per cent of the woolly apple aphids on the roots of apple trees and gave about the same results against parlatoria scale on camellias. A common thiocyanate material was used as a dip at the rate of 1 part to 200 parts of water, and it killed sixty-seven per cent of the woolly apple aphids on the roots of apple trees and produced about the same results when applied to soil mealy bugs on the roots of potted plants.

Dips do not run into the cracks and crevices so well as a spray because of the lack of pressure, and the soil also interferes with their action. Also, insects like mealy bugs and woolly apple aphids are protected by their waxy body coverings.

Dips of dichloroethyl ether and carbon bisulphide emulsion are toxic to mealy bugs and certain other insects in the soil, but are likely to cause plant injury, and so we cannot recommend these materials for plant dips. However, they both may be used in treating unplanted beds, and dichloroethyl ether is effective against lawn moths when properly mixed and agitated. Chloropicrin is also a good fumigant for bare soil and is injected into the soil or used under a paper tent.

Fumigation has an important place in nursery pest control, especially where 100 per cent cleanup for quarantine purposes is required. Methyl bromide has come to the front as a fumigant for nursery stock during the past couple of years, and most of the experimental work has been done by the federal bureau of entomology, the California department of agriculture, the state of Alabama and Oregon State College.

Methyl bromide when properly used is effective against all stages of insects, including eggs; it penetrates cracks and crevices, and soil to some extent; is not soluble in water, and does not absorb or condense against cold surfaces. It can be used in an atmospheric chamber without vacuum. Plants are generally less injured

by methyl bromide than by cyanide or carbon bisulphide, although certain greenhouse plants and some conifers suffer injury.

The California department of agriculture has worked out fumigation treatments for seventy-six different insects and some of these treatments are being used commercially.

A treatment for red scale on citrus, rosebushes and ornamentals has been worked out which is now accepted in southern California counties in lieu of vacuum fumigation.

Baker's mealy bug and long-tailed mealy bug on Boston fern are controlled by methyl bromide, and we know of no other way to eliminate these pests because of the difficulty of killing the young forms down in the unopened tips of the fronds.

Cyclamen mite on cyclamens and dwarf ivies is being fumigated commercially in a number of nurseries and has been controlled this way in the east for about two years.

We have fumigated woolly apple aphids on dormant, bare-root apple trees and pear root aphids on pear trees successfully, under a rubberized tarpaulin in the nursery, and we have found the gas effective against these resistant species.

Gladiolus thrips, including their eggs on gladiolus corms, can be eradicated by a single fumigation without injury to the flowering quality of the corms. This method has been adopted by a number of large growers in California who like the advantage of a single treatment.

Narcissus bulbs have been fumigated successfully for bulb flies. Other bulbs treated include tulips, hyacinths, lilies, yellow callas and Dutch irises.

Other important insect pests which can be controlled by methyl bromide fumigation of nursery stock include olive scale and San José scale on deciduous fruit trees and many ornamentals, parlatoria scale on camellias, soil mealy bug on potted palms, cottony cushion scale, Mexican mealy bug, red spiders, black scale in all stages, cactus scales and many others.

Methyl bromide should be used in an airtight chamber equipped with a fan, some means of heating in the winter, a humidifier to maintain high moisture content of the air, a thermometer and an accurate applicator. It does not look as though there will be a shortage of methyl bromide in cylinders, but bromide in tins cans and certain accessory equipment are hard to get at present; so substitute and improvised equipment will have to be used. We have fumigated 9,000 pear trees at one time under a rubberized tarpaulin by allowing the cov-

[Continued on page 30.]

Landscape Planning and Planting

By Joseph P. Porter

In our study of terraces, we now come to a consideration of the sixth major function. Undoubtedly the use of the terrace as a living room asset for the family is its greatest contribution (see illustrations 74 and 75).

The five functions that have already been discussed in these articles date back far into antiquity. This last purpose is relatively more modern. It originated in connection with the humble cottages of the English peasant farmers. It was developed as an actual outdoor living room and work area. It was located in conjunction with the kitchen and the combination vegetable, fruit and flower garden. During the day it was used by the family for spinning, churning, woodcutting and many other chores. During the evening, however, it became the gathering place of the family and their friends. This area and the kitchen became the center of English home life. Roses were planted upon the cottage wall. A fruit tree was so located that it would shade a portion of the area. The ground beneath was paved with gravel, old bricks or flat stones. A low hedge of currant bushes or a narrow border of flowers separated it from the garden beyond. It was furnished with benches and a table and other articles necessary for comfort and work. It was kept neat and clean.

There is some evidence to show that some of the early English and Dutch colonists utilized this same idea of an outdoor area set aside for the living of the family. I have seen a few places scattered through the New England states and many old homes in Pennsylvania where such a terrace was developed next to the kitchen door, with a huge outdoor oven built upon the farther side. One may also find similar situations in connection with some of the homes of the French Canadians. For some strange reason the idea back of this type of terrace did not continue popular with our people. The appearance today of the average farm kitchen door affords a sad contrast, but I am glad to report that in our rural sections this picture is now rapidly changing. Our farmers no longer tolerate mud, chickens and old potato peelings about the kitchen door. They are seeking information as to how to make their home yards more attractive and more

XIX. THE PRIVATE AREA:

Terraces—Continued.

Nineteenth in series of monthly articles on the application of the principles of landscape architecture to the property of Mr. Average Citizen, by the professor of landscape design in the department of horticulture at Cornell University.

usable. This same question is asked by the suburban and city homeowner, and the living area terrace is our best answer.

Whenever possible the living area terrace should be closely related to the living rooms and workrooms of the residence. In many of our newer houses it is replacing the porch (see illustration 76). The more directly it can be related to the inside by a doorway, the more useful it becomes. In this position it becomes part of the house and part of the garden. It becomes the focal point and introduction to both the garden and the private lawn. The living area terrace may be independent or separated from the house, if it is easily accessible and distinctly related, although immediate connection is considered more desirable since it encourages greater use of the feature.

The less change of grade between the house floor and the terrace surface, the more convenient will be the area. To traverse more than four

to six steps so materially reduces its intimacy and usefulness that it becomes almost a law that over one or two steps must not be used. The ideal arrangement would be a single low step or a development upon the same level. If more steps are needed to reach the lawn or garden, place the longer flight between the terrace and the next unit rather than between the terrace and the house.

There are a number of factors that influence the size of a terrace used as a living area. Above all, it must give the feeling of coziness and intimacy. This means that it cannot be too large. The large terraces often built in connection with the residences of the well to do lack these essential characteristics because of their size. The typical basal terrace is too long and narrow. It is neither a pleasant shape in appearance nor is it wide enough to allow adequate accommodation for the recreation of the family, but by modifying its form through widening it at some point, the two functions might well be combined. Primarily, the size of the living area terrace must fit the size and activities of the family involved. This must be determined in each individual case. When considering size, the designer should also bear in mind the scale of the house and the surrounding grounds. On very small properties its dimensions would tend to be reduced, while on larger properties they might be extended somewhat beyond what would normally be needed for the actual accommodation of the family. Always the question



Illustration 74.—The living area terrace is primarily the center of outdoor home recreation.



Illustration 75.—A well placed and equipped terrace. Note the relationship to the house doors.

of adjusting scale must be left to the experience and judgment of the designer. Never should one of these terraces be designed until every purpose that it may serve has been seriously considered. Present forms of recreation will dictate specific minimum dimensions. As an example, let us consider the area involved when serving a meal. If four individuals were to be accommodated, we might use a card table and four chairs. These chairs are set about the table and room enough is allowed for a person to pass in the rear of each chair in order to serve. We shall find that this setup requires a space approximately 11x11 feet. If reduced to 10x10 feet in size it means not only crowding, but it looks more crowded than it really is because of its relationship to our consciousness of greater space when out of doors. If two tables are to be set up or if some of our guests are to be seated upon the terrace while the meal is being served or removed, the minimum area required would be 11x16 or 11x17 feet. My students often ask me for rules and minimum dimensions. It is necessary for me to tell them that these cannot accurately be given. When they insist, I finally tell them that an area 12x18 feet inside dimensions is usually adequate for a family of four to six persons.

As far as the location of this type of terrace is concerned, one hint was already given when reference was made to its relationship to a house door and living room of the residence. Without doubt this unit area requires the greatest degree of privacy of all the various landscape

features, with the possible exception of the swimming pool and the tea-house. When located within view of strange people, the living area terrace becomes materially restricted as to its uses. It is then no longer a congenial place for afternoon tea or an outdoor dinner party. Much of its value as a fitting place for a summer evening phonograph dance is lost. Such terraces therefore need relatively complete privacy. In some cases this might be obtained by the use of walls, benches, hedges or mass planting of shrubbery. If such a screening can be secured, the terrace might be located next to the public area or the street. The more usual practice is to place the unit in the rear of the house, where its location in the private area assures sufficient seclusion.

The whole design scheme of a property is materially strengthened if the terrace is located at the focal point of the axis lines where they connect with the residence. This makes the terrace the point from which these axis lines radiate and bring about a direct relationship between the terrace and the flower garden on one side and, in most cases, with the private lawn on another side. Always the longer dimension of a living area terrace should face the quietest, most restful view or aspect that is developed within the property. This is usually the private lawn. Spectacular views and intensively developed flower gardens are best located off the narrow end of such terraces (see illustration 76). Always there should be a direct connection and quick transition between the living area terrace and the important developments and minor unit areas located adjacent and within view of its boundary.

A review of the material already covered in these articles under the heading of "Axis" would be valuable at this time. Reference to the diagrams and illustrations used would be particularly helpful. In these diagrams, you can quickly pick out not only the location, but also the relationship of a number of terraces that would be suitable for use as living areas.

Since the living area terrace is usually the only unit of its kind used upon the average small property, it will invariably serve a number of the functions described in the two previous discussions of this subject. If the living area terrace is slightly raised above the surrounding grade, it undoubtedly will function as a base for the building. If the

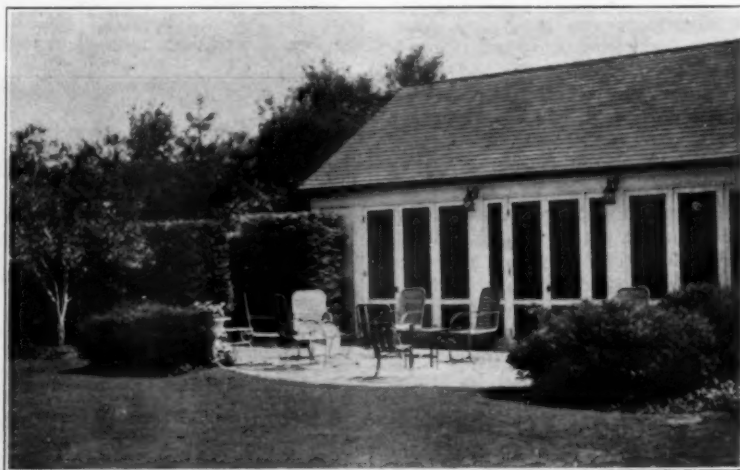


Illustration 76.—Usefulness as well as interest would be lost if this terrace was carpeted by grass. Shade is needed. The opening through the hedge leads to gardens on the left. Compare the treeless effect here with illustration 78.

ground is steeply sloping, it functions for slope adjustment. Some views will always be developed from such a terrace, and it is therefore a view terrace. Its location between the residence and the gardens or lawns beyond makes it a transition element and when properly furnished and developed it becomes decorative in character. All of these factors, however, are subservient to its prime use, namely, as a recreation area for the family. Nevertheless, all are important and each one contributes somewhat to the use and enjoyment afforded by the terrace.

Most of us think of the terrace as an uncovered area open to trees and sky above. While this relationship to the outdoors must always be retained, the terrace to be of greatest service as a living area may need to be both covered and screened. This is important in certain sections of the country where at some seasons of the year the pest of blood-sucking flies makes life outdoors intolerable. It is not always possible to achieve this covering and screening, but it can be done in some instances without destroying the terrace effect. The commonest solution is the use of a pergola-type covering, which might be either solid roof or a roller canopy placed either above or beneath the timber. My own solution is to train vines upon a raised framework above a tin or copper roof, which is disguised above or between the pergola timbers. In fully exposed situations this method will not always work satisfactorily, since uninterrupted sunlight intensified by reflection from the material beneath may burn the foliage.

Fletcher Steele calls attention to the adaptability of the old covered, arched woodshed of the colonial type as an opportunity for living or dining room terrace development. Surely this is worth consideration. Such an area has possibilities of real charm. Intimately related as these structures are to the house itself, a very part of its enclosure, its broad open side on the same level as the ground gives opportunity for correlation to the garden development close to perfect. A superior effect and better relationship may be further developed by the use of stone pavement rather than wooden flooring and extending the pavement out in front where it may form an extension of the terrace or tie into the elements of the garden scheme. Not the least of the good points of the woodshed terrace development is the ease with which it may be screened from insects and thereby made useful when other open areas are unlivable. Moreover,



Illustration 77.—A combination of plants and low wall makes an excellent boundary for this type of terrace. Note arrangement of plant materials, both in front of and back of the wall.

the protection afforded by the three enclosed sides makes it habitable during seasons and in weather when exposed terraces would be far too uncomfortable for pleasure. A fireplace may well be incorporated in the woodshed terrace development. In no way would this type of treatment defeat the spirit of the colonial style, although it smatters more of the English cottage.

Overhead protection and shade may also be obtained by the use of a roller canvas or awning supported upon a frame of pipe (see illustration 75). This arrangement is frequently used temporarily to afford shade until a recently planted tree becomes large enough to function properly. Any such awning arrangement will demand considerable attention and often become a nuisance in regions where high winds prevail. Nevertheless, such awnings have their place and may be of great value where proper shade cannot be secured in some better way.

There is nothing that quite matches a good tree as the shade-contributing element on a terrace used as a living area (see illustration 78). While shade from architecture or some artificial covering assures greater dryness, this advantage may not equal the friendliness and beauty contributed by the tree. Artificial covering can never be substituted for nature's own canopy if we seek close communion with the outdoors. Trees should be selected that not only give adequate shade, but that are also picturesque and that have interest and beauty. If one looks back toward the terrace from the garden, this tree should also support, frame and contribute to the beauty of the residence. This same tree may also be the one that functions as a background tree for the residence when one looks toward the house from the street. Consideration of all of these factors will assist us in selecting the correct tree.

The living area terrace, to be of



Illustration 78.—A friendly, cozy, cheerful and interesting atmosphere should characterize the impression afforded by the living area terrace.

maximum use, must be well constructed. It must be as nearly level as possible. Undue roughness in the pavement must be avoided, and even the use of turf as a carpet is questionable chiefly because, to be of maximum use, the area should be livable immediately after rain, and turf dries out too slowly. In the Scandinavian countries of Europe gravel has been used for this purpose extensively. It makes an inexpensive floor covering and is easily kept clean. It will never be popular, however, in our country until we change the style of our shoes. Flagstone and brick are the two best materials for our use. Unfortunately, both are relatively expensive. A good floor covering is important, for upon it depends the usefulness of the terrace. Further information on paving, including the selection of materials, pattern and methods of construction, will undoubtedly be covered in some future article.

Living area terraces always appear best when their boundaries are accurately and definitely defined. The simplest and often the best boundary definition is made by a change in the materials that are used for surfacing the ground (see illustrations 75 and 76). The area designated for the terrace may be located at the same grade or on the same level as the lawn beyond. If the terrace surface is composed of grass, there will be no defining line between the terrace and the lawn, and the effect will be weak. On the other hand, if flat stones are laid as the terrace surface, even when some grass or moss is permitted to grow between the stones, this arrangement gives a definite outline and one is conscious of the distinction between terrace and lawn (see illustration 78). Such an arrangement is satisfactory. If a grass-surfaced terrace is carefully outlined by a neatly graded bank or slope, the edges marking the change of grade will afford definition. This arrangement may occasionally prove satisfactory and desirable, but as a rule it is still usually desirable to change the material that constitutes the ground covering.

Many devices can be employed that will strengthen the boundary effect of a terrace. In addition to the change of surfacing material or the use of a bank or slope, we find the low clipped hedge commonly employed (see illustration 76). The formality of a clipped hedge is usually more appropriate than the use of informal shrub groups, although in very informal situations the latter might occasionally be utilized. Artificial and architectural elements

are frequently employed. If the residence is of stone or brick either of these materials might be incorporated as a low wall. Low walls bounding part or all of a living area terrace are popular (see illustration 77). They not only contribute greatly to the aesthetic effect, but they have definite use. People may sit upon them. They make a convenient place for setting down dishes, glasses, books, ash trays and the like. They may support pots or boxes of flowers as part of the decorative scheme (see illustration 78). Occasionally a low picket fence or some other form of wooden balustrade is appropriate. Until the war, wrought iron was gaining rapidly in popularity for this purpose. The stone spindle balustrade is usually too expensive to permit its use on smaller home properties.

The degree of enclosure for a living area terrace is important. Ideally the terrace should back against the house on one or two sides. Its location in the ell of a building is ideal (see illustration 75). No living area terrace should be completely open on all sides. The feeling of coziness and protection on the part of those who use the area is necessary. This is only obtained when some of the terrace is backed up or enclosed by relatively high barriers. The greater the effect of solidity and permanence afforded by these barriers, the greater the feeling of protection. People instinctively arrange themselves with their backs toward such a barrier and face out toward the open. Apparently this arrangement gives the greatest measure of satisfaction.

No terrace used as a living area is complete until it has been properly furnished. The first equipment needed will be those items that take care of the actual living of the family—tables, benches, comfortable chairs and other similar items. An outdoor fireplace may be built into the scheme as part of the terrace wall. Color and interest should be found on these terraces. Some sculpture or wrought-iron work may be appropriate. Decorative tile and pottery are frequently employed. Plants and flowers will never be used extensively on these terraces, yet some plant material is essential. A good vine effect may be needed upon the house wall (see illustration 75). Plants, however, must be used in close enough association to provide good transition to the garden beyond (see illustration 77). Potted and tub plants are frequently used upon the terrace itself, and sometimes narrow beds of flowers and evergreens partly outline the area or separate it from the wall of the residence (see illus-

tration 78). Equipment and accessories used on the terrace should be as interesting and appropriate as the furnishings used within the house living room.

Living area terraces are bound to grow in popularity. Few home yards would be at all complete without them. If we are to produce developments that will satisfy our clients we must give considerable thought to the designing and the equipping of this important area.

OBITUARY

D. B. Belden.

D. B. Belden, president of the Foster Nursery Co., Fredonia, N. Y., died October 26 at the age of 65. Although in poor health for some time, he continued active until the end. In addition to his position with the nursery firm, Mr. Belden was president of the Forest Hill Cemetery Association, deacon of the First Baptist church, a former village trustee, director of the Citizens Trust Co. and a past master of the Forest lodge of Masons.

Mr. Belden was born at Ellery, N. Y., but had lived at Fredonia since he was 10. Surviving are his widow, Mrs. Bessie Belden; a daughter, Mrs. John Parsons, and a son, George, stationed at Fort Monmouth, N. J.

F. Kuechenmeister.

F. Kuechenmeister, florist and nurseryman of Wichita, Kan., died October 8, at the age of 85. He had gone out to look after some propagating frames and was found by his son, W. L. Kuechenmeister, lying on a path.

F. Kuechenmeister was born at Holstein, Germany, in 1857. Coming to this country in 1880, he later established a florists' business at Wichita with two brothers and in 1885 he started in business for himself, operating the Riverside Greenhouses. In 1919, Mr. Kuechenmeister started a nursery business, operated as Kuechenmeister's Nursery.

Surviving are his widow and three sons. Otto Kuechenmeister is a florist and nurseryman in North Carolina; E. L. Kuechenmeister operates the Riverside Greenhouses, and W. L. Kuechenmeister is in charge of the nursery.

William Armstrong.

William Armstrong, who with his youngest son, James, had operated the William Armstrong & Son Nursery, Harrisville, Mich., for many years, died October 4 at the age of 85. He had been in ill health for some

time. A native of Canada, he went to Michigan fifty-seven years ago. His widow and six children survive.

Henry Mohr.

Henry Mohr, proprietor of the Highland Nursery, San Rafael, Cal., died October 27. In business at San Francisco for several years with his brother, Fred, he moved to San Rafael about 1922, where he opened his nursery. Surviving are his widow, Elise, and two brothers, Fred and John.

Edwin Stewart Worthen.

A hit-and-run driver caused the tragic death, October 30, of Edwin Stewart Worthen, of Brook-Worth Gardens, Memphis, Tenn., when he was struck by a speeding car as he was changing a tire on his automobile, en route from Decatur, Ala., to Huntsville, Ala. He had gone to Decatur only a short time before to take a 60-day training course in the preparation of airfields.

Born at Springfield, Mass., forty-nine years ago, Mr. Worthen worked in greenhouses and nurseries in his early years and attended Massachusetts State College, Amherst. He worked in nurseries in the east and south until 1936, when the Birmingham Nurseries, awarded the landscaping contracts on the first two housing projects at Memphis, sent Mr. Worthen there to supervise the work.

Remaining at Memphis, he founded his own business in landscape service. For one season he conducted a weekly 15-minute broadcast over a local station, answering horticultural questions sent in by listeners. At the time of his death he had two small houses devoted to propagation, in which he was expert.

His widow, Mrs. Marion B. Worthen, plans to continue the business, assisted by a son of 15 and two daughters, 16 and 11. Two older sons, Sgt. Charles S. Worthen and E. Paul Worthen, a second lieutenant, are stationed at Wilmington, Del., and Lebanon, Tenn., respectively, as reported in the preceding issue.

Amiel F. Dass.

Amiel F. Dass, 57 years old, proprietor of the Dass Nursery Co., Bridgman, Mich., died October 31 at Benton Harbor. He was born July 13, 1885, in Germany and came to Michigan when a child of 5.

At the services, conducted at a funeral home at St. Joseph, the casket bearers were Carl Stahelin, Robert Ackerman, Charles Reck, Ernest Heyn, Carl Groth and Adolph Krieger. Burial was in the family plot at the Bridgman cemetery.

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Caledonia—X	Killarney Brilliant	Red Radiance
Columbia	Lady Ashtown	Roslyn
Condesa de Sagastio—X	Lady Hillingdon	Rouge Mallerin—X
Dainty Bess—X	Luxembourg	Soeur Therese—X
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Edith Nellie Perkins	Ilchester	Talisman
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2-year No. 1.....	18c	16c ea.	15c ea.
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50 plants at 100 rate.

D. T. Poulsen	Kirsten Poulsen	Perle D'or
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	Each	Per 10	Per 100
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2-year No. 1½.....		15c ea.	12½c ea.

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Baby Doll	Golden Salmon	Lafayette
Baby Tausendschon	Ideal	Miss Edith Cavell
Cecile Brunner	Katharina Zeimet	Triomphe Orleansais

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	Each	Per 10	Per 100
2-year No. 1.....	16c	15c ea.	14c ea.
2-year No. 1½.....		12c ea.	9c ea.

50 plants at 100 rate.

American Beauty, Red—X	General Jacqueminot	Mrs. John Laing
American Beauty, White	Gruss an Teplitz—X	Paul Neyron
Black Prince—X	John Russell	Persian Yellow—X
Frau Karl Druschki	Magna Charta	Prince Camille de Rohan

Varieties above marked X, 3c per plant more, each grade.

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	Each	Per 10	Per 100
2-year No. 1.....	16c	15c ea.	14c ea.
2-year No. 1½.....		12c ea.	9c ea.

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American Pillar	K. A. Viktoria	Radiance, Pink
Caledonia—X	Luxembourg	Radiance, Red
Chaplin's Pink	Mary Wallace	Reine M. Henriette—X
Dainty Bess—X	Mme. Greg. Staechelin	Silver Moon
Dr. W. Van Fleet	Mrs. Aaron Ward—X	Talisman

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Experiences with New Plants in 1942

By C. W. Wood

Dianthus Old Spice.

You may remember that *Dianthus Old Spice* was mentioned in the résumé of experiences last year. You may also remember that I said the plant had every appearance of being a headliner, though the report was made on a brief visit to the nursery which controlled its introduction. I have had the privilege of watching the plant in a friend's garden this year and still think that my first enthusiastic report was stated rather conservatively. In fact, observation throughout the present year leads me to think that it would be good property in any grower's hands, if satisfactory arrangements can be made with the patent owners.

This year was bad for leaf spot in northern Michigan; so I was not surprised to find *Old Spice* suffering mildly from that malady. Although it did not bloom continuously here, I seldom saw it without flowers, and the production was as prodigious in the early part of the season as one expects from the average floriferous plumarius form. The flowers, both in their salmon-pink coloring and their intense spicy fragrance, are all that one could desire. If it behaves elsewhere as it did here (I did not see a split calyx all summer), its neat, fully double flowers will help to make it friends with all who have had unsatisfactory experiences with ordinary double plumarius varieties.

Bedding Violas.

After trying for more than a score years to grow the English bedding violas in this climate, I must say that, generally speaking, the results do not justify the efforts here in northern Michigan. They simply cannot stand our hot summers with any degree of comfort, no matter how much care I take. Occasionally, I find a plant in a bunch of seedlings which gives a good account of itself for a year, but it eventually goes the way of its kind. That report is not needed, I suspect, by older growers, but it may save newcomers to the business much grief.

There is a brighter picture, however, in the American hybrids, commencing with *Jersey Gem* and including some which followed its introduction. It should be said in passing that *Jersey Gem* or any of its

progeny cannot be grown from seeds with any degree of uniformity. In fact, most of the reports of poor results or unsatisfactory behavior of any kind with this class of violas may be traced, no doubt, to the same source—seedling rather than cutting-grown stock of the true plants. In addition to *Jersey Gem*, which needs no description or recommendation, I have found the following satisfactory performers in this climate: *Climax*, beautiful lavender; *Dark Beauty*, same color and shape as the parent of the race, but produces more flowers here, both outdoors and under glass in winter, and the stems are longer, making it better for cutting; *Ohio Gem*, essentially a white *Jersey Gem*.

Although I am not so sure about the new *Catherine Sharp*, I believe its beauty and possibilities demand a separate paragraph. It has an abundance of beauty in its large (about twice as large as *Jersey Gem*) violet-colored flowers. Its behavior here has been quite perfect, showing hardiness to cold, amiableness in our trying summer heat, ability to produce flowers quite continuously and cutting qualities quite equal to *Jersey Gem*. It all sounds and looks like a splendid plant of wonderful possibilities in the neighborhood nursery, provided propagating arrangements can be made with the patent holders.

As several inquiries have come in during the past year or two on the two English bedding varieties, *Maggie Mott* and *Moseleys Perfection*, a few words on their behavior here may be useful to others. There is no mistaking the fact that their large flowers, heliotrope-blue in the former and clear yellow in the latter, are attractive; however, if they are as susceptible to heat elsewhere as they have been here, I doubt if they are going to interest the average gardener beyond one purchase.

Romneya Coulteri.

It seems to be the accepted opinion among eastern gardeners and nurserymen that the bush or canyon poppy, *Romneya coulteri*, one of the most spectacular of the poppy tribe, is not hardy in this climate. Its California home would indicate the same thing, but its behavior here gives the lie to all our suspicions. Anyway, I

have watched it for years in a friend's garden here in northern Michigan and am ready to believe that it is perfectly hardy, so long as it is given a perfectly drained soil. It has at least done well here, growing in light sand with a little leaf mold added. It was planted in the light shade of an old apple tree, contrary to all recommendations to give it full sun and, despite numerous depredations on the root system to increase the stock by cutting away divisions, it has increased in a pleasing way until now it is a handsome many-stemmed bush to a height of six feet, covered with big (as much as eight inches across), yellow-tasseled, fragrant, white poppies throughout most of the summer. Judging from my observations covering five or six years, I should expect the plant to be hardy in all parts of the east, with the possible exception of the coldest sections, and to find it a ready seller as it becomes available. The manuals say little about its propagation, except that it may be grown from fresh seeds, requiring several years between the sowing and the first flowers. In the experiments in my friend's garden, propagation by means of suckers in early spring before growth starts has been satisfactory.

Campanula Viscountess Byng.

Out of a large collection of named *carpatica* forms which I have been testing during recent years, the one of most appeal to visitors, with the possible exception of variety *Convexity*, has been *Viscountess Byng*. I suspect that is true mainly because of its large flowers, though the lovely shade of blue (opal, according to those who should know) no doubt has some influence. There is no mistaking the fact that this is a splendid variety of a splendid *campanula*—one so easily grown that the most inexperienced gardener can enjoy it and one so easily propagated from cuttings of new growths in early spring that the commercial grower can realize a handsome profit from his labor.

While on the subject of the *Carpathian* beauty, it might be well to add that gardeners are instantly attracted by variety *Convexity*, perhaps because of its unusual flower form, in which the perianth is reflexed. Whether the attraction is

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from that or its pretty shade of blue, or from both, makes little difference so long as the attraction exists. And that has surely been the case here.

Poppies.

Several poppies that I have had from what is rather vaguely referred to as the middle east, meaning in this case Asia Minor and adjacent territory, have more than ordinary merit. The names appear to be so confused that I have made no effort to get them straightened out and I suspect that would be an impossible task anyway. They are mostly more or less perennial, though often short-lived, especially if the soil is heavy, and are so amiable that they always leave children behind to carry on their labors. The foliage of many is finely cut and beautifully silvered, making an irresistible appeal to gardeners even when out of flower. The color is mostly in shades of salmon, buff and orange, all highly useful in the garden, and the flowers often come in an endless procession throughout the summer. Best of all from the nurseryman's viewpoint, they are quite easy to transplant, contrary to the usual poppy behavior. The following kinds, seeds of which have been noticed in American lists, will bear investigation: *Papaver heldreichi*, *P.*

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A beautiful hybrid raised between M. Niedzwetzkyana and M. Scheideckeri, of pyramidal habit with bronze foliage, carrying a profusion of large rosy wine-red blooms.

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4 to 5 ft., 5 to 8 canes....	.60	.55

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hyoscyamifolium, *P. lateritium*, *P. schinzianum*, *P. trinaefolium* and *P. caucasicum*.

The New Mulleins.

I have thought that my interest in the new named forms of verbascum might have its foundation in a lifelong love for the entire race, but I noticed during the past year that a test planting of Cotswold Gem, Cotswold Queen, Pink Domino and some of their progeny created just as much enthusiasm among visitors. The

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first-named is made conspicuous by its purple-centered golden-tan flowers, the second pleases with its buff-fish-pink shade, and the last (my favorite of the lot) is an attractive shade of rose pink. All grow to three or four feet in height and bloom from June or July into September. It is true that mulleins can stand much dry weather, as all know who have watched the weedy ones in the wild, but it is not true that they give a really commendable performance if allowed to take care of themselves during long periods of drought. Nor is it true, as some catalogues imply, that all mulleins will reproduce themselves from seeds, thereby answering the objection that many kinds are of short duration. No one will deny that the weedy species are able to maintain themselves, for that is why they are weeds, but to expect the named forms mentioned here to do so is expecting more from nature than she is able to perform. This year I flowered a number of plants grown from seeds of *V. Cotswold Gem* and they varied all the way from almost white to purplish-pink. The only way I know to maintain a stock of that class is by careful divisions of the plants, preferably in early spring.

Jeffersonia Dubia.

Although I remember giving an enthusiastic report of this little-known Manchurian plant in the *American Nurseryman*, I cannot locate the notes at this time and so I am including it here. Anyway, it deserves commendation because of its ethereal beauty and amiable disposition. As it grows here in the dense shade of one of the European cherries, it is one of the loveliest things in the spring garden, lighting up its dark corner with generous tufts of pretty scalloped leaves, bluish or bronzed, according to age and exposure (perhaps weather, too) and further endearing itself to the gardener by a gorgeous production of hepatica-like blue flowers, held above the foliage on thin 6-inch to 8-inch stems, commencing in May and carrying over into June. In all ways, it is a lovely plant of easy culture (I handle it like hepatica), immensely attractive at all stages of growth, and I suspect it would be a good local seller. Incidentally, it has begun to self-sow sparingly here, indicating a logical method of propagation.

Penstemon Purdyi.

Penstemon heterophyllus purdyi has long been known to western nurserymen as California Blue Bedder, but it seems not to have reached the

east except in isolated cases. That means a definite loss to eastern gardeners, I think, of a good plant, one not at all like our usual conception of *heterophyllus*, but rather a low decumbent plant, seldom over six inches tall, as it grows here, and a prodigious producer of lavender to blue flowers over a long period (June into August, if not allowed to mature seeds or suffer from want of moisture). Although rather short-lived here, it may be perpetuated from cuttings in early spring or from seeds, preferably sown outdoors in autumn.

Digitalis Thapsi.

One might think that writers cloak their ignorance of foxgloves when they speak of them as biennial or perennial, but further experience with the species teaches one that they may be either, depending, of course, on the species and on treatment. Thus, the common foxglove is usually spoken of as a biennial, which it generally is, but an occasional plant may act as a short-lived perennial. These facts have been pointed out to show that when I speak of *Digitalis thapsi* as being a perennial

it may not always live up to that reputation. In fact, I usually expect about half of my plants to die after their first flowering, especially if that performance has been as profligate as a foxglove is capable of. But even so, *thapsi* can be considered a perennial and one of the most pleasing of *digitalis* species. Its first recommendation is a rosette of downy leaves, a lovely ornament for a well drained spot in sun, and from that spring stems to a height of two feet or less, carrying the typical foxglove inflorescence, this time the large flowers either opening buff and changing to a pleasing shade of strawberry pink or the latter from the start. In either case, it is an attractive plant, easy of culture and useful in the sunny border.

HARRY C. SCOTT, who has operated for six years as a landscape contractor at Chattanooga, Tenn., as the Scott Landscape Service, is now associate engineer in charge of camouflage planting at Robins field, Warner-Robins, Ga., with a program for moving 850 trees of 4 to 6-inch caliper and miscellaneous other materials.

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E. D. SMITH CELEBRATES SIXTIETH ANNIVERSARY.

In honor of the sixtieth anniversary of the firm of E. D. Smith & Sons, Ltd., Winona, Ontario, Canada, a special 4-page supplement was issued by a local newspaper, the Grimsby Independent, which is of great interest, not only for the recollections of Senator Ernest Disraeli Smith, now 88 years of age, but for the data regarding this firm and pictures of its operations, old and new.

Senator Smith's great-grandfather went to Canada in 1787 after the Revolutionary war and settled near Winona. The founder of the nursery business was born December 8, 1853. He married Christina Ann Armstrong in 1886 and his family consists of one daughter, Mrs. Gordon Conant, and two sons, Brig. Armand Smith, now president of the company, and Leon Smith, first vice-president.

Not only was an extensive nursery business built up, but also a jam department which has made the firm's name known throughout the Dominion of Canada. The latter was started in the early 1900's, when the surplus of fruit brought distress to customers of the nursery and Senator Smith undertook to relieve their situation by canning the produce. Now an extensive line of jams, jellies, marmalades, grape juice, tomato ketchup and other items is manufactured and sold through wholesale dealers.

A fleet of nine trucks and seven cars furnishes transportation, while twenty-nine horses and four tractors are used in the cultivation of the many acres of nursery stock.

In the earlier World war Armand Smith was lieutenant colonel in command of a militia regiment and later became brigadier. He had the honor of taking overseas the first Canadian infantry brigade of the First division in the present war. He took his command to France in June, 1940, was seriously injured in October and has been honorably discharged because of the nature of his injuries.

Brigadier Smith's son, Lieut. Llewellyn Smith, is now overseas with the R. H. L. I. Maj. Leon Smith, due to ill health, has so far been unable to participate actively in present military affairs.

In the celebration of the seventieth anniversary of the founding of the Germantown Horticultural Society, Philadelphia, a young fernleaf beech was planted October 10 at the Morris Arboretum, Chestnut Hill, in honor of Thomas Meehan.

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3 to 6 ins., \$7.50 per 100; \$60.00 per 1000

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Charlie Chestnut



The Yellow Quartz Discoidal

Down at Kansas City, during the convention last summer, it just happened I was drawn into the bar. One of the wholesale salesmen took me in there, thinking no doubt I was going to put out a order for some osage orange or else some jack pine seedlings. Anyway I went along as he promised a free beer. Who should be in there leaning over the bar except Emil. How long he had been there I dont know, but from the waving of his arms I figured he was a hangover from the last shift of bartender.

Right away he lit into me. "Charlie," he says, "John Bushbottom and the boys here has been reading some of the stuff you wrote up for the members for the paper. John says some of the members is doping it out that I aint no master mind in business deals. Some of them deals John says looks like I never went past the first semester in kindergarten. That kind of stuff has got to stop or else I will be the laughing stock for all the members in the convention."

"Why dont you go to work," says John, "and write up some of the tricky deals Emil has put over in his time. It aint that Emil dont like the publicity; the only thing, Emil feels you aint give him a fair deal. Aint that right Emil?"

"Thats just the idea exactly," says Emil, wiping off his mustache with his shirt sleeve. "You know yourself, Charlie, I put over some mighty clever deals, plenty of 'em, only you think its smart to show me up."

Emil always gets that way after a few beers so I thought I better humor him a little.

"Maybe you are right, Emil," I says, "you name a deal, any one at all, and I will tell the boys right here and now how you outsmarted everybody and put over something that was suitable to write home about. Only I aint going to make up anything, I'm going to tell it just as it happened so dont blame me. Here is a chance now to make it a good deal because I aint going to run it in the paper, so if it runs foul of the federal trade commission or aint fit to print it dont make no difference in this case. You just tell me any deal at all that you are especially proud of."

Emil sat there a minute on the stool and lit the last inch of his old soggy cigar. I could see he was trying to conjure up the details of some

long forgotten deal and was sparring for a little time. "Fill 'em up bartender," I says.

"How about the time, Charlie, when I talked Mrs. Brewster out of Henry's collection of Indian relics, you remember Charlie, when we was planting the blue spruce and—"

"Sure you want me to tell that deal, Emil?" I says. "Taking advantage of an old lady aint nothing to brag about, Emil," I says.

"Go ahead, Charlie, I call that one of my good deals. I come out good on that altho it wasnt just the way I planned it. It all goes to show how a person can get ahead if they keep their wits about 'em."

"According to my ideas, Emil, there aint much to that story but I promised you so I will go to work and give the boys the low down on the Mystery of the Yellow Quartz Discoidal."

"Wait a minute now, Charlie," says John, "what in time is a discoidal and what is so mysterious about it?"

"You got me there, John," I says. "You tell John what it is, Emil, you are an expert on Indian stuff."

"I dont claim to be no expert, Charlie. I didnt know no more about Indian stuff before we got mixed up in that deal than I know how to crochet a doily. I found out later

that a discoidal is a round flat piece of stone, but what it was used for nobody knows altho some say it was part of the stock in trade of the medicine men. Go ahead now with the story, Charlie," says Emil.

"Well lets see," I begun, "it must of been along about the first of October one fall—" I started, but Emil stopped me.

"Get it right, Charlie, it was just after the 15th, because I had been out that morning collecting the last of the dues for the Woodmen and I always get the dues in for the 15th," says Emil.

"O. K." I says, "call it the 15th altho I cant see that it makes any difference if it was the first or the 15th. Anyway we was working down to the Brewsters."

"You mean I was working, Charlie, and you was just standing around as usual," Emil horned in.

"Shut up, Emil," John says, "and let the boy tell the story and it better be good. I should be out in the lobby making a few trades, but go ahead and dont beat around the bush, Charlie."

"As I was saying," I continued, "it was in the fall after Henry Brewster died in the spring. Mrs. B. was cutting it high wide and handsome with landscape work around the place. Henry wouldnt let his Mrs. plant nothing more expensive than a few petunias so the old lady was having quite a fling carrying out her own ideas on fixing up the place."

"Dont refer to Mrs. B. as the old lady, Charlie. After all she is still our best customer and I dont think

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she is more than a couple of years older than me," says Emil.

"Don't forget, Emil," I says, "some of the far away places didn't know the Civil War was over when you was hatched. You aint no beardless youth yourself."

"Well anyway" I continued, "me and Emil was planting a blue spruce. It was a 12 footer and we was pulling and hauling it around trying to get it in place. After a lot of puffing and grunting Emil straightened up and says to me, Charlie, I am going over to Mrs. B's barn and see if she aint got a bar we can pry that tree with. This is the most goshawful ball I ever seen on a tree. Any more lifting and I will have trouble with my hernia again."

"Say Emil," says John, "there is a doctor in South Bend that can fix your hernia so it wont bother you again. I had a man working for me in the packing shed he got so he couldnt lift nothing heavier than a medium sized pipe wrench, so I sent him to South Bend. The Doc took one look at him and—"

"Wait a minute now," I says, "is this a medical clinic or do you want to hear about the Mystery of the Yellow Quartz Discoidal?" I says.

"Just a minute, Charlie, I want to write that Docs name here in my book. Go ahead now, Charlie, get on with the story," Emil says.

"So Emil went over to Mrs. Brewsters barn and I sat down on the running board of the truck. Must of been 15 minutes I waited and Emil didnt show up. First I thought Emil had fallen down and broken his leg, but I didnt hear any yelling so I waited until half an hour was up and then I went over to the barn. It didnt take long to find Emil. There he was in the old box stall where Henry used to keep his Morgan stallion, only there wasnt any horses in the barn then."

"That stallion, John, was the sire of that team of Morgans I was telling you about," says Emil. "Henry used to take the prize at the horse show in Lake Park every fall in them days. I remember one time they shipped in a stallion from Vermont for the show and Henry—"

I got down off the stool and started out of the bar. "Hold on, Charlie," Emil says, "get on with the story. Remind me to tell you about that horse show sometime, John. Go ahead, now, Charlie."

"Well there in the box stall was all of Henry Brewsters collection of Indian stuff, and his old iron safe and his desk which his wife moved out of the house the day after the funeral. There was a couple of boxes

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<i>Liriodendron tulipifera</i>25	.85
<i>Lonicera morrowi</i> , yellow, c.s.	1.40	5.00
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<i>Magnolia fraseri</i> , c.s.	1.55	5.50
<i>Magnolia kobus</i> , c.s.	1.20	4.25
<i>Magnolia soulangeana lennei</i> , c.s.	1.75	6.25
<i>Magnolia virginiana</i> (glauca), c.s.65	2.25
<i>Mahonia nervosa</i> , d.b.	1.25	4.50
<i>Mahonia rubra</i> , c.s.80	2.25
<i>Myrica cerifera</i> , d.b.70	2.45
<i>Osamonia cerasiformis</i>	1.85	6.50
<i>Ostrya virginiana</i> , d.b.80	2.75
<i>Phoenix dactylifera</i>55	1.85
<i>Picea abies</i> (Norway Spruce)	2.20	8.00
<i>Picea glauca</i> (White Spruce)	1.40	5.00
<i>Picea glauca densata</i> (Black Hills White Spruce)	2.25	8.50
<i>Picea pungens</i> (Colo.)	1.75	6.25
<i>Picea pungens glauca</i>	2.75	10.00
<i>Pinus attenuata</i>	1.65	6.00
<i>Pinus banksiana</i>	1.20	4.25
<i>Pinus chinata</i>	2.50	9.00
<i>Pinus mugo mugus</i>	2.65	9.50
<i>Pinus ponderosa</i>85	3.00
<i>Pinus resinosa</i>	2.20	8.00
<i>Pinus rigida</i>65	2.25
<i>Pinus strobus</i>65	2.25
<i>Pinus sylvestris</i>	2.50	9.00
<i>Prunus cerasifera</i> (Myrobalan), c.s.35	1.10
<i>Prunus Hansen Bush Cherry</i> , c.s.70	2.50
<i>Prunus mahaleb</i> , c.s.40	1.30
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<i>Ribes lobbi</i> , c.s., per oz., \$1.50	.50	1.75
<i>Robinia pseudoacacia</i> , c.s.25	.75
<i>Sambucus canadensis</i> , c.s.55	1.90
<i>Sambucus racemosa</i> , d.b.65	2.25
<i>Schinus molle</i>60	2.10
<i>Schinus terebinthifolia</i>	1.45	5.25
<i>Sequoia gigantea</i>	2.75	10.00
<i>Shepherdia canadensis</i> , d.b.	1.25
<i>Spiraea douglasii</i> , c.s., per oz., \$3.25		
<i>Syringa villosa</i>	2.00
<i>Thuja orientalis aurea conspicua</i> , 1.00	3.00	
<i>Thuja orientalis aurea nana</i> , 1.05	3.75	
<i>Tsuga canadensis</i>	1.20	4.25
<i>Tsuga caroliniana</i>	1.95	7.00
<i>Ulex europaeus</i>	1.10	4.00
<i>Vaccinium angustifolium</i> (pensylvanicum), d.b.80	3.25
<i>Viburnum alnifolium</i> , c.s., per oz., 85c		
<i>Viburnum cassinoides</i> , c.s., per oz., 80c		
<i>Viburnum lantana</i> , c.s., per oz., 50c		
<i>Viburnum molle</i> , c.s., per oz., 60c		

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and a chest full of stuff and there was Emil pawing it over when I come in the barn.

"Better get on with planting the spruce," I says, "or else it will take root right there and we will never get it loose."

"Lookit here, Charlie," Emil says, holding up an Indian ax. "This here is the ax Henry used to have hanging on a chain over his desk. I remember Henry told me about that ax one time. That was a battle ax an old Indian chief used to kill 24 white men out in Kansas. Wiped out a whole band of buffalo hunters with it, Henry said." Emil was turning it over in his hand and wiping off the dust.

"Looks like an ordinary hunk of rock to me," I says. "Probably somebody picked it up along the railroad track and just made up that story about the Indians. Anyway any Indian I ever saw was too lazy to pick up a rock like that without two squaws to help him lift it. Lets let his junk lay here, I says, and get on with the planting, otherwise we will be here until seven oclock and you will have to pay me for overtime."

That remark brought Emil back with a start as he is never one to favor overtime.

"There you go, Charlie. Thats the kind of remarks I object to in all the stuff you write up for the members. What about the rainy days I paid you for this summer when I could of sent you home? But I didnt do it, did I? No, I kept you on the job when I could have saved money."

"You know the reason you kept me on, Emil, is when I threatened to go to work in the windmill factory. They was after me at the civic club last April. I could be a foreman there, and"—

John was looking at his watch and yawning so I says, "Where was I before Emil horned in?"

"You was up to the place where we was in the box stall, Charlie. Then tell the boys what happened Charlie. This is the good part, John," Emil says.

Just then Mrs. Brewster come in the barn and seen us there in the stall. "Say Mrs. B. we was in looking for a crow bar and we just run onto this Indian stuff of Henrys. What you going to do with it Mrs. B?" Emil says. "I could go to work and haul it all away for you and sweep out the box stall here in nice shape."

"I hadnt thought much about it, Emil, until the other day. Mr. Morse at the bank asked me if he could look it over, he might want to buy it he said. In fact he offered me \$50.00 for all thats here. But I know

Henry spent quite a lot of money on these things and maybe its worth more than that."

"You can be sure of one thing, Mrs. B., if Mr. Morse offered you \$50.00 for this stuff its worth a lot more than that. I'll tell you what I'll do Mrs. B. Now you been wanting a honeysuckle hedge along the drive way. I will go to work and put in that hedge and also fill in the privet hedge there on the street and give you the whole planting on a trade for this stuff. I would like to have these things on account of Henry was an old friend of mine."

"We made the deal right there and took the chest and the two boxes home on the truck. The next day it rained all day so me and Emil sorted the Indian stuff out and put it in an old book case we had in the office. We went down to the used car lot and got some windshield glass out of some old Model T Fords to make some shelves for the case.

"Some of the axes and skinning stones was a little heavy so when we finally got the case all nicely arranged Emil decided to put the last big rock on the top shelf. That was the straw that broke the camels back so to speak. The shelf busted right in the middle and down come the whole works, all five shelves with broken glass and Indian arrows all in a big pile.

"That was just about 5 oclock and quitting time, so I went out and got a packing case and a shovel and shoveled the whole works into the box, glass and all, and pushed it over in the corner."

I looked over at Emil sitting there with his elbows on the bar and I'll swear he was snoring, so I called the bartender to fill 'em up again, but Emil wasnt asleep at all, as soon as his glass was filled he didnt say a word, but just lifted it up and drank it down with one swallow.

"Well, to get on with the story, I had forgotten the whole deal until one day old Morse come up to the office and chewed the rag about one thing and another until finally he says, "By the way, Emil, Mrs. B. says

you got Henrys collection of Indian stuff. There is a piece or two I was interested in there, if you want to let me look it over. I got a few things down to the bank and I am always looking for anything new I aint got."

Emil says, "There it is, Mr. Morse, there in that packing box behind the door. Our case busted and we aint had time to fix it over again. You are welcome to look it over if you want to, but you got to be careful of broken glass. If you see anything you want we will talk business. I got to wait on a customer but I will be right in."

About a half hour later Mr. Morse was finished and had the stuff all sorted out and had put it back in the box.

"Didnt you find nothing Mr. Morse? Emil says. "There is some choice specimens there."

"Its only ordinary stuff, Emil. I was looking for a particular piece that Henry used to have. It was a Yellow Quartz discoidal that was quite a rare one. Never seen one like it. Henry must of sold it before he died. That was quite a valuable stone, but the rest of the stuff is just mill run stuff."

"Its all there just the way it come from Brewsters, Mr. Morse. Sure you looked everything over good. What did it look like?" I says.

"It was a round, flat, smooth stone about 10 inches across and made of yellow quartz. Never seen one like it. A Doctor in Chicago heard about it and asked me to see if I could buy it for him. Too bad you aint got that piece, thats worth a hundred to two hundred dollars depending on how bad the Doc wanted it," says Mr. Morse.

"Whats the Docs name?" I says, "maybe he would buy the stuff thats here."

Mr. Morse fished around in his pocket for the Doc's card. "You can write it down Charlie," he says, "but it wont do no good." I wrote his name down anyway, he was in the loop in Chicago and was an eye doctor.

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After Mr. Morse was gone, I says to Emil, "Do you want to take that yellow quartz in to the Doc or do you want me to?"

"What yellow quartz?" Emil says. "What are you talking about?"

"Probably you aint noticed", I says, "but that stone Morse mentioned we been using for a door stop for the last couple of months. Its sitting right there in plain sight and Mr. Morse walked right past it twice. I reached into the box and picked up the first thing handy one day to hold open the door and it turned out to be the Yellow Quartz discoidal, the only thing in the collection thats any good."

The upshot of it was Emil took the Yellow Quartz to Chicago that very afternoon and sold it to the Doc.

"What you get for it, Emil?" John says. "Was it really worth anything?"

Emil reached in his pocket and brought out his glasses. "Look here, John, here is a \$30.00 pair of bifocals. I got these and \$100.00 and all I had to put out was \$10.00 worth of honeysuckle and a couple of dozen privet. Now thats what I mean, John, aint that a tricky deal for you?"

**CAN SHIP NURSERY
STOCK IN BRITAIN.**

In its order of September 26, 1942, the British ministry of war transport directed that flowers and plants in soil should not be accepted for conveyance by rail, but made an exception of bare-root nursery stock. The order reads:

1. Flowers or plants shall not be accepted for conveyance by rail; provided that this direction shall not apply to the acceptance of:—

(i) Flowers or plants for export for which a certificate of health for export has been granted by the ministry of agriculture.

(ii) Plants used for producing food crops.

(iii) Hardy nursery stock not in soil or in pots.

2. In this direction "flowers" shall include cut flowers and decorative foliage; "plants" shall include plants in pots, in soil or otherwise, and "hardy nursery stock" shall mean trees, shrubs and bushes with persistent hard, woody stems, but not including herbaceous plants.

JAMES N. LYON, secretary of the Forest Nursery Co., McMinnville, Tenn., is a volunteer in the navy construction battalion as an electrician's mate and is now in training at Davisville, R. I. He had been with Forest Nursery Co. for the past six years and served as president of the Tennessee Nurserymen's Association in 1941.

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<i>virginiana elegantissima</i>	3.00	27.50
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<i>virginiana pyramidalis</i>	3.00	27.50
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<i>soulangiana</i>	2.50	22.50
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<i>Picea pungens moerhousii</i>	3.50	32.50
<i>Pinus cembra</i>	3.00	27.50
<i>Quercus robur fastigiata</i>	4.00	37.50
<i>Thuja occidentalis douglasii</i>		
<i>spiralis</i>	2.50	22.50
<i>occidentalis elegantissima</i>	2.50	22.50
<i>occidentalis lutea Geo. Peabody</i>	2.50	22.50
<i>occidentalis lutea B. & A. type</i>	2.50	22.50
<i>occidentalis nigra</i>	2.50	22.50
<i>occidentalis rosenhali</i>	2.50	22.50
<i>occidentalis wareana (sibirica)</i>	2.50	22.50
<i>orientalis aurea nana</i>	2.25	20.00
<i>orientalis conspicua</i>	2.25	20.00
<i>orientalis elegantissima</i>	2.25	20.00
<i>Taxus media brownii</i>	3.00	27.50
<i>media hatfieldii</i>	3.00	27.50
<i>Tsuga canadensis pendula</i>	3.00	27.50
<i>Viburnum burkwoodii</i>	3.00	27.50

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War Control Orders

GASOLINE RATIONING.

Extending over the entire country November 22, gasoline rationing, or "mileage rationing" as OPA prefers to call it, curtails the operation of the ordinary passenger car to sixteen gallons a month. This is obtained by coupons in an "A" book, issued for each passenger car owned, provided the owner has sold or given up all tires in excess of five for each car.

Under certain circumstances, "B" books may be obtained, primarily by those engaged in war industries or essential civilian occupations. As previously reported in these columns, a nursery salesman has an opportunity to obtain this increased mileage if he is selling fruit trees to farmers, as persons engaged "in the sale of necessary productive equipment for farms." Such persons may also obtain recapped tires through the local ration board. To obtain a "C" book persons must be engaged in certain occupations which give them preferred classifications.

For the operation of trucks, "T" books are obtainable when a certificate of war necessity has been secured, and the books will be tailored to fit the individual cases by tearing out coupons in excess of the applicants' requirements.

Two types of books will be issued to applicants seeking gasoline for non-highway use, "E" books and "R" books, depending how much gasoline is needed. Application blank form OPA R-537 is obtained at a local rationing board for this purpose.

PICKUP NOT ALLOWED.

A customer who receives a delivery from a store, or other business establishment in the establishment's truck, may not send his own truck to the store to pick up additional material in the calendar day, Jack Garrett Scott, general counsel of the Office of Defense Transportation, made clear in an interpretation of general order ODT 17.

The order specifically provides that "...no person shall cause to be made by motor truck...more than one delivery from any one point of origin to any one point of destination during any calendar day." In the interpretation Mr. Scott held that the same person, the customer, would be causing both the delivery by the store's truck and the delivery by his own truck and therefore would be violating the order.

TRUCK CERTIFICATES.

Since November 15 is the dead line and after this date no motor truck may legally operate without one, each nurseryman by this time should have obtained his certificates of war necessity to cover the trucks he operates, whether on the road or on the farm. Any operator who has not obtained application blanks can do so by applying to the district ODT office nearest him or writing to Central Mailing Office, Office of Defense Transportation, P. O. Box 2259, Detroit, Mich.

Anyone who leases a commercial motor vehicle from another person for a period of seven or more consecutive days must also obtain a certificate of war necessity, and in this instance a 10-day grace period is allowed.

If a passenger car is used for delivery or service purposes it is not considered a commercial motor vehicle unless a structural change is made to convert the car to commercial use.

Trucks used only on the nursery, for which no state license has been purchased, require a certificate of war necessity for their operation. Whether a vehicle has a state license or is registered has no bearing upon the requirements for a certificate.

Certificates of war necessity will not be required for vehicles laid up indefinitely until they are placed back in operation. This is because the certificates are issued for the operation of each vehicle, and not for the vehicle itself. The ODT draws a distinction between vehicles in dead storage and those used as stand-by equipment. Those in dead storage, such as a farmer's truck which will not be placed into use until spring, need not have certificates now. Stand-by equipment, which is currently available to be pressed into service whenever needed, however, should have certificates of war necessity.

BOX LUMBER SCARCER.

Warning was sent out last month by the War Production Board to manufacturers of wooden boxes and their customers to study the possibility of using substitute materials. Probably nurserymen have already found that cheaper grades of lumber are short or out of stock in local lumberyards. While it is possible to follow the prescribed procedure to obtain box lumber by filling out

PD-1A forms, there is little hope that supplies can be obtained in this way because of priority orders ahead.

Hence, care should be used with the supply of box lumber on hand, and other means of packing should be used when it is possible. The use of paperboard cartons is increasing, and in some cases it may be desirable to break up shipments so they may be handled in this fashion.

WAGE REGULATIONS.

So much space has been given in newspapers to the phase of the pay stabilization order limiting salaries to \$25,000 per year—which affects no more than 20,000 or 30,000 persons in the country—that nurserymen are in the dark as to how the program of wage and salary regulation affects their employees, from inquiries received from readers.

Since taking the office of economic stabilization director, James F. Byrnes has promulgated six orders to set in action the machinery for the regulation of wages and salaries. These are in broad terms, and the details remain to be worked out. Farm labor wages are still receiving the consideration of government executives; they are in the jurisdiction of the Secretary of Agriculture.

In general, the regulation of all wages and salaries under \$3,000 and those salaries up to \$5,000 which are covered in wage agreements are to be regulated by the War Labor Board. Salaries over \$3,000 other than those handled by the War Labor Board as part of wage agreements are subject to regulations being prepared by the Treasury Department.

One important exemption will relieve the concern of many readers. That is the exemption from regulation of wage adjustments by employers of eight or less individuals.

Exempted from regulations, also, are salary increases made in accordance with the terms of a salary agreement or rate schedule and as the result of individual promotions or reclassifications, individual merit increases within established salary rate ranges, operation of an established plan of salary increases based on length of service, increased productivity under incentive plans, or operation of a trainee system. The only string attached is that these raises must not "result in any substantial increase of the level of cost or shall furnish the basis either to increase price ceilings of the commodity or service involved."

If an employer has already an established agreement or schedule in effect, that is sufficient. If not, he

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can draw up such a schedule and it may be submitted to a regional staff to be set up shortly by the War Labor Board and the bureau of internal revenue of the Treasury Department.

Ten regional offices are being opened in the quarters of the wage-hour division of the Department of Labor to answer queries, and by November 16 it is expected regional directors will be appointed to set up the machinery for administration of the pay stabilization orders.

It should be obvious that the purpose of the pay stabilization order is to prevent the further skyrocketing of wages in war industries and the pirating of labor. Most civilian industries, especially those not governed by union scales, are paying so much less than war workers' wages that there should be room for such increases in pay which an employer is likely to desire to make. In any event, when the machinery is set up he can obtain permission, or at least seek it, to increase wages by filing an application with the proper authority.

MAYBE MORE TIRES.

The severe tire-rationing regulations which have been in effect for almost a year will be relaxed under a new order which the Office of Price Administration is formulating to keep in service as many as possible of the nation's 27,000,000 passenger cars.

For the first time, recapping rubber and the new grade 3 tire made from reclaimed rubber will be made available to the average motorist whose driving cannot be classified as directly essential to the war effort. Used tires, now frozen, also will be released along with used and new tubes.

The tire-rationing order will be linked with the gasoline rationing program. The OPA decided that with rubber consumption rigidly controlled by gasoline rationing the existing reserve of rubber would be conserved. Therefore, it will broaden the eligibility requirements to permit more motorists to participate. The OPA also will extend its recapping program to protect existing tires by providing for their rehabilitation. The order has been in the process of preparation for several weeks.

The tires will be rationed on the basis of the gasoline mileage ration assigned to each car. However, whether the average motorist will obtain a rationing certificate will depend on the demand for tires and recapping rubber by motorists with more preferential claims.

Generally, motorists who have duties which are important to the war

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<i>Acer dasycarpum</i> , 6 to 8 ft.	25.00
<i>Acer rubrum</i> , 6 to 8 ft.	60.00
<i>Acer rubrum</i> , 8 to 10 ft.	80.00
<i>Aesculus Octandra</i> , 2 to 3 ft., S.	3.50
<i>Aesculus Octandra</i> , 3 to 4 ft., S.	5.00
<i>Aesculus Pavia Rubra</i> , 9 to 12 ins., S.	4.00
<i>Aesculus Pavia Rubra</i> , 12 to 15 ins., S.	5.00
<i>Albizia Julibrissin</i> , 3 to 4 ft., Tr.	25.00
<i>Albizia Julibrissin</i> , 4 to 5 ft., Tr.	35.00
<i>Betula Nigra</i> , 4 to 5 ft.	25.00
<i>Betula Nigra</i> , 5 to 6 ft.	35.00
<i>Cercis Canadensis</i> , 3 to 4 ft.	20.00
<i>Cercis Canadensis</i> , 4 to 5 ft.	30.00
<i>Cercis Canadensis</i> , 5 to 6 ft.	40.00
<i>Cornus Florida</i> , 6 to 12 ins., S.	1.50
<i>Cornus Florida</i> , 12 to 18 ins., S.	3.00
<i>Cornus Florida</i> , 18 to 24 ins., S.	3.00
<i>Cornus Florida</i> , Grafting Grade, S.	3.00
<i>Cornus Florida</i> , 2 to 3 ft.	30.00
<i>Cornus Florida</i> , 3 to 4 ft.	35.00
<i>Cornus Florida</i> , 4 to 5 ft.	60.00
<i>Cornus Florida</i> , 5 to 6 ft.	80.00
<i>Cornus Florida</i> , 6 to 8 ft.	100.00
<i>Cornus Florida Rubra</i> , 2 to 3 ft.	50.00
<i>Cornus Florida Rubra</i> , 3 to 4 ft.	100.00
<i>Cornus Florida Rubra</i> , 4 to 5 ft.	150.00
<i>Fraxinus Lanceolata</i> , 4 to 5 ft.	10.00
<i>Fraxinus Lanceolata</i> , 5 to 6 ft.	15.00
<i>Fraxinus Lanceolata</i> , 6 to 8 ft.	25.00
<i>Hicoria Ovata</i> ; <i>Hicoria</i> (Carya)	
<i>Laciniosa</i> , 6 to 12 ins.	3.00
<i>Hicoria Ovata</i> ; <i>Hicoria</i> (Carya)	
<i>Laciniosa</i> , 12 to 18 ins.	5.00
<i>Hicoria Ovata</i> ; <i>Hicoria</i> (Carya)	
<i>Laciniosa</i> , 18 to 24 ins.	8.00
<i>Juglans Nigra</i> , 4 to 5 ft.	20.00
<i>Juglans Nigra</i> , 5 to 6 ft.	30.00
<i>Juglans Nigra</i> , 6 to 8 ft.	50.00
<i>Liquidambar Styraciflua</i> , 3 to 4 ft.	25.00
<i>Liquidambar Styraciflua</i> , 4 to 5 ft.	35.00
<i>Liquidambar Styraciflua</i> , 5 to 6 ft.	45.00
<i>Liriodendron Tulipifera</i> , 4 to 5 ft.	30.00
<i>Liriodendron Tulipifera</i> , 5 to 6 ft.	40.00
<i>Liriodendron Tulipifera</i> , 6 to 8 ft.	60.00
<i>Magnolia Macrophylla</i> , 5 to 6 ft.	60.00
<i>Magnolia Macrophylla</i> , 6 to 8 ft.	80.00
<i>Magnolia Tripetala</i> , 4 to 6 ft.	45.00
<i>Magnolia Tripetala</i> , 6 to 8 ft.	60.00
<i>Magnolia Tripetala</i> , 8 to 10 ft.	75.00
<i>Morus Tatarica</i> , 6 to 12 ins., S.	.60
<i>Morus Tatarica</i> , 12 to 18 ins., S.	.90
<i>Morus Tatarica</i> , 18 to 24 ins., S.	1.50
<i>Morus Tatarica</i> , 2 to 3 ft., S.	3.00
<i>Platanus Occidentalis</i> , 5 to 6 ft.	25.00
<i>Platanus Occidentalis</i> , 6 to 8 ft.	30.00
<i>Platanus Occidentalis</i> , 8 to 10 ft.	50.00
<i>Platanus Occidentalis</i> , 1 1/4 to 1 1/2-in. cal.	75.00
<i>Quercus</i> : White Oak, Chinquapin Oak Willow Oak, Chestnut Oak 5 to 6 ft.	75.00
<i>Robinia Pseudacacia</i> , 2 to 3 ft., S.	1.00
<i>Robinia Pseudacacia</i> , 3 to 4 ft., S.	1.50
<i>Robinia Pseudacacia</i> , 4 to 5 ft., S.	2.00
<i>Robinia Pseudacacia</i> , 4 to 5 ft., Br.	15.00
<i>Robinia Pseudacacia</i> , 5 to 6 ft., Br.	20.00
<i>Ulmus Americana</i> , 4 to 5 ft.	20.00
<i>Ulmus Americana</i> , 5 to 6 ft.	25.00
<i>Ulmus Fumila</i> , 2 to 3 ft., S.	2.00
<i>Ulmus Fumila</i> , 3 to 4 ft., S.	2.00
<i>Ulmus Fumila</i> , 4 to 5 ft., S.	5.00
<i>Ulmus Fumila</i> , 4 to 5 ft., Br.	30.00
<i>Ulmus Fumila</i> , 6 to 8 ft., Br.	60.00

Wholesale Growers of Tree Seedlings, Shrubs, Evergreens, Lining Out Stock. Write for our new Fall Price List.

BOYD NURSERY COMPANY

McMinnville, Tennessee

effort or to the maintenance of public health and safety will continue to receive good-quality new tires.

Before an applicant will be able to get recapping rubber or a tire, he will have to have his old tires carefully inspected by an authorized inspector and will have to prove his need as well as eligibility. Abuse or neglect of a tire will result in a denial of a rationing certificate.

Despite the broadening of the eligibility base, local rationing boards will have to judge each application for a rationing certificate for tires on the basis of its relative importance to the war program, public safety, health and morale.

When replacements are necessary, the type of tire granted will depend upon the amount of gasoline allotted to the applicant. Those with the highest gasoline ration will qualify for the best grade of tire.

A car owner with a gasoline allowance of 560 miles a month or less and whose tires are worn to the recapping point will be entitled to a recapping certificate, and if the casings are unfit for recapping, he will be entitled to a certificate to purchase a grade 3 tire.

Used tires, recapped tires and new tires made of reclaimed rubber are grade 3. This mileage applies to all motorists with a basic "A" book, as well as those holding both "A" and "B" books.

Passenger car owners who get gasoline for more than 560 miles but less than 1,000 miles a month will be eligible for recaps, or for a grade 2 tire if recapping is not possible.

All motorists will be eligible for inner tubes. They may buy new or used tubes at their option.

SELL USED EQUIPMENT.

Manufacturers and processors—as well as merchants, farmers and artisans—may sell their used equipment and supplies without reference to ceilings established by the general maximum price regulation, the Office of Price Administration announced November 3.

From the outset the general regulation exempted sales "by any merchant, farmer, artisan or person who renders professional services, of his supplies, or business, farm or professional equipment, not acquired or produced for the purpose of sale."

Amendment 32 to the general regulation, effective November 9, extends this exemption to manufacturers, processors, producers, non-profit institutions and others not included in the original exemption. As revised, the exemption applies to sales

"by any person, of his used supplies or equipment not acquired or produced by him for the purpose of sale."

The amendment, however, in no way affects price controls on sales by persons who make a business of buying and selling used equipment and supplies, and such sales in general remain subject to the general maximum price regulation.

The amendment does not exempt any sales of used equipment or supplies for which ceiling prices are established by specific price regulations.

AVOID "HOT GOODS" IN COLLECTED PLANTS.

An important clarification has recently been made in the status (1) of employees of concerns engaged in collecting plants from the wild as related to the wage-hour law, (2) of plants so collected when sold and (3) of dealers and others handling such plant material for resale purposes, announces Richard P. White, executive secretary of the American Association of Nurserymen.

The purpose of the collection of plants from the wild may be twofold, (1) to grow on in the nursery into finished salable material or (2) for immediate resale without further cultivation.

In the first case, a nurseryman may

use his regular employees, normally engaged on the nursery-farm rendering agricultural services, to collect plants from the wild and transplant them to the nursery, without such employment off the farm being covered by the wage-hour provisions of the law, as such work is "incident to or in conjunction with farming operations."

Independent contractors engaged in collecting plants from the wild for resale purposes are not included in the agricultural exemption, since the work is not performed by a farmer or on a farm. If such collectors of plants do not pay the minimum wage of 30 cents per hour and time and one-half for all hours over forty per week, they are violating both the wage and the hour provisions of the law, and plants collected under such conditions become "hot goods" in commerce.

Nurserymen purchasing and selling plants collected in violation of the law are themselves violating the "hot goods" section, which provides for a maximum fine of \$10,000 for willful violation or six months in prison for a second offense.

WE OFFER —

For Fall 1942 Delivery

EVERGREENS

Assorted, with a large stock of Pyramidal Arborvitae and Pfitzer Juniper, in grades.

SHRUBBERY SHADE TREES BARBERRY

3-yr. transplanted Red and Green

APPLE, PEACH, CHERRY,
and PEAR TREES
IN ASSORTMENT.

CALIFORNIA PRIVET

1 and 2-yr. in grades.

3-yr. ASPARAGUS PLANTS, etc.

Write for trade list.

THE WESTMINSTER NURSERIES

Westminster, Maryland

MAKE MONEY ON THESE!

RHUS COTINUS

3 to 4 ft., \$3.75 per 10; \$35.00 per 100

4 to 5 ft., 4.25 per 10; 40.00 per 100

See prices on Viburnums and Cotoneasters in Oct. 1 issue. Send for catalogue.

I. E. ILGENFRITZ SONS CO.
MONROE - SINCE 1847 - MICHIGAN

Evergreens

Barberry

Privet

Write for wholesale price list.

GARDNER'S NURSERIES

Rocky Hill, Conn.

"A friendly, efficient sales service"

E. D. ROBINSON

SALES AGENT

28 So. Elm St. P. O. Box 285

WALLINGFORD, CONN.

Representing

Adams Nursery, Inc.
Bristol Nurseries, Inc.
Barnes Brothers Nursery Co., Inc.
North-Eastern Forestry Co., Inc.
A. N. Pierson, Inc.

A complete line of well grown hardy plant material
Evergreens and Lining-out Stock

HEAVY TREES

QUERCUS ALBA
QUERCUS ALBA BICOLOR
QUERCUS NIGRA
QUERCUS PHELLOS
QUERCUS RUBRA

2 to 3-in. caliper, \$125.00 per 100.
Can furnish carload lots.

WOLTERIDGE NURSERIES, McMinville, Tenn.

Daphne
CaeorumCompact
and
SturdyOver 5000
Specimen
Plants
Grown
Especially
for ForcingValentines—Easter—Mothers' Day
Shipped by freight any time
Takes six weeks to force
Each plant in a Cloverleaf pot

Size	10	100
6 to 9-in. spread.....	\$4.50	\$40.00
9 to 12-in. spread.....	6.00	55.00
12 to 15-in. spread.....	7.50	70.00
15 to 18-in. spread.....	9.00	85.00

Adams Nursery, Inc., Springfield, Mass.

?

Who offers the nursery trade of this
country the greatest line of rare trees
and shrubs?

Write for list 4243 and find out!

But use your business stationery, as
post cards will be ignored.W. B. CLARKE & CO.
San Jose, California

Flowering Trees

Crabs, Dogwoods, Thorns

In
Good Assortment

Write Us

JACKSON & PERKINS COMPANY
Newark, New York

PROFITABLE PEONIES

Best varieties. Attractive prices.
Fine quality roots, liberally graded.
30th Annual Catalogue ready.
HARMEL PEONY CO.
Growers of Fine Peonies since 1911.
Berlin, Maryland

PLATANUS ORIENTALIS

Rooted cuttings—acknowledged best
strain by 50 years' trial.
3 ft. and up, per 1000.....\$50.00
2 to 3 ft., per 1000.....30.00
18 to 24 ins., per 1000.....20.00
Late fall shipment. Packing at cost.
BLOODGOOD NURSERIES, Albertson, L. I., N. Y.

Old English BOXWOOD

(Wholesale Only)

All slow-grown dense specimens. Red clay soil.
Priced by height and spread. 18x12 ins. to 24x24
ins. in unlimited quantities. Also large specimens
up to 5 ft. Write for price list.

BOXWOOD GARDENS

Mrs. R. P. Royer

High Point, N. C.

For their own protection, purchasers of collected plants should determine that the material they purchase has been collected according to the wage and hours scales of the law. This can be done by (1) paying a price sufficient so that the collector is able to pay his employees the minimum wage, and (2) keeping a reasonable check through supply contracts and ordinary trade channels on labor practices under which the collection of wild plants is carried on.

In making a contract with a collector, the nurseryman can specify that the employees of the contractor should be paid the minimum wage and overtime compensation required and that the employer shall fulfill his obligations under the act such as record keeping, etc., with the contract to be terminated for failure to comply.

If such precautions are taken by nurserymen, and if collectors fail to operate within the law, then the present enforcement policy of the wage and hour division would be to proceed against the collector and not the nurseryman, who has taken reasonable precautions to insure that he is not handling "hot goods." However, section 15 (a) (1) would seem to authorize the division to enjoin an innocent purchaser from shipping in commerce any goods produced in violation of the act.

NEW PLANT PATENTS.

New plant patents recently issued include the following, according to Rummler, Rummler & Davis, Chicago patent lawyers:

No. 552, Rose, Lyman B. Coddington, Murray Hill, N. J., assignor to L. B. Coddington Co., Murray Hill, N. J. A new and distinct variety of rose plant, characterized as to novelty by the brilliant pink color of the blooms, their large size and great number, combined with the strong, spicy fragrance of the flowers and free-blooming habit of the plant.

No. 553, Carnation, Fred N. J. Klug, Blue Point, N. Y. A new and distinct variety of carnation plant, characterized as to novelty primarily by the dark color tones in the pink color range, combined with the habit of vigorous growth, productivity and disease resistance.

THE wedding of Thomas H. Dodd, of the Tom Dodd Nurseries, Semmes, Ala., and Miss Pauline Evelyn Pounds was celebrated October 14.

E. C. MORAN has changed his permanent address to Stanford, Mont., where he has purchased a large building, that will be remodeled and used for a storehouse and office. He will continue a branch at Medora, N. D., and other points where he collects seeds and crude drugs. His business has grown tenfold in the past two years, as essential oils and resins have been added to the products for which he makes collections, in addition to forest tree seeds, native plants and crude botanicals.

MICHIGAN-GROWN LINING-OUT STOCK

Surplus Production of Quality Lining-out
StockAll items well rooted, suitable for next
spring's field planting.

For Late Fall 1942—Spring 1943 Delivery

EVERGREENS

Juniperus Virginiana, 2-yr., Tr.	Per	Per
nursery-grown	100	1000
3000 4 to 6 ins.....	\$ 8.00	\$ 50.00
5000 6 to 8 ins., grafting size.	7.50	65.00
5000 8 to 10 ins., grafting size	12.50	100.00

TREES AND SHRUBS

Berberis Atropurpurea		
2500 2-yr., 6 to 12 ins.....	\$ 3.50	\$30.00
10000 1-yr., 6 to 9 ins.....	2.00	15.00
Berberis Thunbergi		
5000 2-yr., 8, 6 to 9 ins.....	1.00	7.00
10000 2-yr., 8, 9 to 12 ins.....	1.50	10.00
5000 2-yr., 8, 12 to 15 ins.....	2.50	20.00
Betula Alba		
400 2-yr., 2 to 3 ft.....	4.50
600 1-yr., 2 to 3 ins.....	2.50
Cydonia Japonica, upright		
5000 1-yr., 6 to 12 ins.....	4.00	35.00
Euonymus Alatus		
1200 2-yr.....	7.00	60.00
2500 1-yr.....	5.00	40.00
Euonymus Alatus Nanus		
2000 2-yr.....	7.50	65.00
4000 1-yr.....	6.50	55.00
Euonymus Europaeus		
100 2-yr.....	5.00
200 1-yr.....	4.00
Euonymus Radicans Vegetus		
3000 1-yr.....	4.00	35.00
Philadelphus Aureus		
2500 2-yr., SWX.....	7.00	65.00
2000 1-yr., potted.....	5.00	45.00
Philadelphus Banniere		
1000 1-yr., 4 to 8 ins.....	4.00
Philadelphus Girardole		
1000 1-yr., 4 to 8 ins.....	4.00
Philadelphus Lemnol		
1000 2-yr., 6 to 12 ins.....	4.50
Philadelphus Nivalis		
1000 2-yr., 6 to 12 ins.....	4.50
Philadelphus Virginialis		
1000 2-yr., 6 to 12 ins.....	7.50	70.00
3000 1-yr., 4 to 6 ins.....	6.00	55.00
Prunus Tomentosa		
5000 1-yr., 8 to 12 ins.....	3.50	30.00
Salix Babylonica		
2500 2 to 5 ft.....	3.50	30.00
Viburnum Americanum		
4000 1-yr., 6 to 10 ins.....	3.00	25.00
Viburnum Lantana		
1500 2-yr., 8 to 15 ins.....	4.00	35.00
5000 1-yr., 2 to 4 ins.....	2.50	20.00
Viburnum Dentatum		
5000 1-yr., 3 to 6 ins.....	2.50	20.00
Viburnum Lentago		
1000 2-yr., 6 to 12 ins.....	5.00	45.00
Viburnum Opulus		
2500 2-yr., 4 to 8 ins.....	4.00	35.00
Viburnum Sieboldi		
1000 2-yr., 6 to 12 ins.....	5.00	45.00
Viburnum Opulus Sterile		
1000 2-yr., 8 to 12 ins.....	4.00	35.00
1000 1-yr., SW.....	3.00	25.00

FINISHED STOCK

Juniperus Communis Depressa,	Per 10	Per 100
specimen plants		
18 to 24 ins., B&B.....	\$15.00	\$125.00
24 to 30 ins., B&B.....	20.00	175.00
30 to 36 ins., B&B.....	25.00	225.00

Usual terms to reliable nurserymen.

Dealers cash.

Make your reservations now for shipment
when you are ready.PONTIAC NURSERIES
ROMEO, MICHIGAN

LAKE'S SHENANDOAH NURSERIES

A general and complete
assortment of choice
NURSERY STOCK
for Fall and Spring
delivery

Ask for complete Fall Trade List.

Shenandoah, Iowa

This Business of Ours

Reflections on the Progress and Problems of Nurserymen

By Ernest Hemming

A CIVILIZED PROFESSION.

There is a feeling among many nurserymen, the writer included, that our vocation isn't of much value to the war effort. Fruit trees are important; the morale effect is there, and the value of plants in camouflage is considerable but hardly paramount. Therefore, the winning of the war is for each nurseryman a matter to which he must give his utmost consideration, but rather as an individual and not collectively. Some of us are undoubtedly going to put down our spade and pick up a rifle; others, I am sure, will do their utmost to the limits of their abilities. This, however, is an individual or personal matter. As a profession or an industry we are a strictly civilized one and, I say without any feeling of smugness, one without a place in a world at war. As an industry we may be called on to make the greatest sacrifice of all, which would be to cease to exist for the duration. And let me tell you that would be a sacrifice, instead of selling more roses or spiraeas for victory. That's just bunk.

This war is a terrible tragedy, not a glorious drunk; it is a breakdown of civilization; it is the result of the failure of the community of nations to live according to an ethical standard in which too many still only half believe. We are going to win this war, not because we are Americans, but because as a nation we have been the least selfish and are the ones the peoples of Belgium, of Austria, of China, of Norway and other countries wish to see as leaders to help them into a new world.

When the war is won, the world in its exhaustion will probably realize that certain knowledge first gained about two thousand years ago is indeed the keystone of civilization, no matter whether you call it the "four freedoms," the "century of the common man" or what have you.

In this coming era, our profession has a real place, an important place. As an industry we should be planning now for this period. Other industries are. Have you read of the "blue prints" for the future? They are real plans, for "cars of the air," air-conditioned homes, television and many others. They sound good, and we shall get them.

Let your imagination run a bit and think of the possibilities in horticulture.

With decent wages for all workmen, there will be gardenized homes for all. Farm homesteads will be landscaped. We shall tend to live in smaller communities under decentralized industry. Men will work in landscaped industrial parks. Our highways will be shaded and our towns planned and planted. There will be recreational areas like Jones' Beach for all sections and people, by the shore, by the lakes and in the mountains. That's the kind of civilization people really want, and we should be vital then.

Are we ready for such times? No! We don't even seem to be thinking about it. Well, if we don't, some bureau will do it for us, and when that happens we get left.

In spite of the fact that it may seem a long way off, there is much that we can plan, and often a violent cataclysm like a war makes drastic changes possible. For within our own house we can suggest the following as some things to consider: Uniform and more exacting standards, wages and prices nearer those of other industries, social security, an association of landscape architects employed by nurserymen and contractors, more cooperative advertising and even some planned production.

FALL SPECIAL

12,000 Pink and White Dogwood

Cornus florida, 3 to 4 ft., 50c; 4 to 5 ft., 75c; 5 to 6 ft., \$1.00; 6 to 7 ft., \$1.50.
Cornus florida rubra, 3 to 3 ft., 50c; 3 to 4 ft., \$1.00; 4 to 5 ft., \$1.50; 5 to 6 ft., \$2.00; 6 to 7 ft., \$3.00.

Above prices are for B&B.
If wanted NR, 20% less.

Red-leaved Barberry, 18 to 24 ins., 15c.
Green-leaved Barberry, 18 to 24 ins., 10c.
American Redbud, 6 to 7 ft., 75c.

Klein Nursery & Floral Co.

Crestwood, Ky.

PFITZER JUNIPER

Several Thousand

12 to 15 ins. \$0.75
15 to 18 ins. 1.00
18 to 24 ins. 1.15
24 to 30 ins. 1.25

F.O.B. Nursery

Also some Uprights
correspondingly cheap.

LOUISVILLE NURSERIES

Route 6 Louisville, Ky.

Interests outside our house are many and nearly all neglected by us. We have lost a rightful place in reforestation; the government controls most hybridization and all plant introduction and exploration. We don't seem unduly interested in our park system or arboretums.

We should be interested in the introduction of the school boy and girl to the love of plants and elements of gardening. If compulsory military training comes, think how fortunate for the young men if the training of a type of C. C. C. work is combined with it.

We are going to live in a different world, and there seems to be a genuine realization that it must be a better world, not just for you or me, but for everyone from the Chinese coolie to the southern dinky. There is no alternative to stave off complete world-wide demoralization. In such a world there will be a place for gardens that will surpass our fondest dreams. The more highly civilized peoples become, the greater their interest in gardens. Let's do our share of planning for that time. E. S. H.

A PETITION in bankruptcy was recently filed by Floyd Anthony Johnson, landscape contractor, Chester, N. Y., listing liabilities of \$2,332 and no assets.

MOUNT ARBOR NURSERIES

E. S. Welch, Pres. - Est. 1875 - Shenandoah, Iowa

----- Wholesale Only -----

"One of America's Foremost Nurseries"

FRUIT TREE SEEDLINGS

Washington-grown

**APPLE-MAHALEB-MAZZARD
PLUM**—Americana and Myrobalan

California-Grown ROSES

LARGE ASSORTMENT IN BEST VARIETIES

Winter and Spring 1943 only

Large growers of **FRUIT TREES,
SMALL FRUITS, ORNAMENTAL
TREES, SHRUBS, EVERGREENS,
VINES and PERENNIALS.**

Send want list for prices.

Ask for complete FALL TRADE LIST.

PLATANOIDES— NORWAY MAPLES

	Per 100	Per 1000
6 to 12 ins.	\$ 7.50
12 to 18 ins.	15.00
18 to 24 ins.	20.00
2 to 3 ft.	35.00
3 to 4 ft.	50.00
4 to 5 ft. trans.	\$18.00
5 to 6 ft. trans.	25.00
6 to 8 ft. trans. 1/2 to 1- in. cal. (straight trunks)	35.00

25 per cent cash with order or 10 per cent discount for full cash. Orders without deposit not accepted.

STATE ROAD NURSERY

State and Sprout Roads, Route 1,
Media, Penna.

SURPLUS LIST

	Per 10 each	Per 100
Virginiana Glauca		
100 4 to 5 ft.	\$4.50	\$425.00
100 5 to 6 ft.	5.00	450.00
Cannetti		
100 4 to 5 ft.	4.25	400.00
Irish Junipers		
500 3 to 4 ft.	2.00	175.00
Scopulorum		
3 to 4 ft.	2.50	225.00
Hill's Golden Pfitzer		
250 2 to 2 1/2 ft.		225.00
Kosteri. Spreaders		
100 30 to 36 ins.		250.00
Chinese Elm—2000		
2 to 3 ft.		30.00
3 to 10 ft.		40.00
American Ash—2000		
6 to 8 ft.		35.00
8 to 10 ft.		50.00
1 1/2 to 2-in.	.75	
Amur River North—2000		
2 to 3 ft., 6 br. up.	\$65.00	per 1000
3 to 4 ft., 6 br. up.	75.00	per 1000
Lombardy Poplar—3000 extra nice		
6 to 8 ft.	\$9.20	each
8 to 10 ft.	.25	each
1 1/2 to 1 3/4-in.	30.00	per 100
1 1/2 to 2-in.	45.00	per 100

WANTED

2000 Chinese Arborvitae
3000 Juniper Grafts
5000 Red-leaved Barberry—in lining-out grades.

EGYPTIAN NURSERY & LANDSCAPE CO.
FARINA, ILL.

HOBBS

APPLE, 1 and 2-yr., leading varieties.
ELM—MOUNTAIN ASH—BIRCH,
Cut-leaf Weeping—WHITE DOG-
WOOD—GINKGO—NORWAY
and SOFT MAPLE—PIN, RED,
BURR and WHITE OAK—LOM-
BARDY POPLAR—REDBUD—
SWEET GUM—CRATAEGUS—
THURLOW WILLOW.
BARBERRY, Green and Red.
BEAUTY BUSH.
PRIVET, Amur and Ibota.
EVERGREENS, up to 6 feet.

C. M. Hobbs & Sons, Inc.

Bridgeport Indiana

Oldest and largest Nursery in Indiana
Established 1875.

FOR LANDSCAPE and SALES LOT

Irish, Greek and Pfitzer Junipers;
Globe Arborvitae, Scotch Pine, Spruce,
Hemlock.

Redbud, Dogwood, Chinese Elm, Lom-
bardy Poplar and Assorted Shrubs.

Visit our nursery, 15 miles from Louis-
ville.

NICK'S NURSERY, Anchorage, Kentucky

NORTHERN-GROWN NURSERY STOCK

Evergreen Liners—Specimen Ever-
greens, B&B—Hardy Fruit Trees—
Hardy Apple Seedlings—Ornamental
Shrubs—Lining-out Shrubs, Trees and
Vines. Write for price list.

J. V. BAILEY NURSERIES

Daytons Bluff Sta. St. Paul, Minn.

BURTON'S

HEADQUARTERS FOR
EVERGREEN GRAFTS, TRANSPLANTED
EVERGREENS, SHRUB LINERS.
RAKE ITEMS YOU DO NOT
FIND IN MOST LISTS! Write!
HILLTOP NURSERIES
CASSTOWN, OHIO

Please mention the American Nurseryman when writing
advertisers

ON THE CALENDAR.

[Association secretaries are invited to
supply dates and places of coming meetings
as soon as they are set.]

December 5 and 6, Kansas Association
of Nurserymen, annual meeting, Manhat-
tan.

December 8 and 9, 1942, Minnesota
State Nurserymen's Association, Radisson
hotel, Minneapolis.

January 5 to 7, 1943, Western Associa-
tion of Nurserymen, Kansas City, Mo.

January 12 to 14, Illinois State Nur-
serymen's Association, La Salle hotel,
Chicago.

January 20 and 21, Oklahoma Nur-
serymen's Association, Huckins hotel,
Oklahoma City.

January 21 and 22, Ohio Nurserymen's
Association, Desher Wallick hotel, Co-
lumbus, following short course at Ohio
State University, January 18 to 20.

January 27 and 28, Michigan Associa-
tion of Nurserymen, Hayes hotel, Jackson,
Mich.

February 11 and 12, Wisconsin Nur-
serymen's Association, Schroeder hotel,
Milwaukee.

OHIO SHORT COURSE.

The fourteenth annual short
course for nurserymen, landscape
gardeners and arborists at Ohio State
University is being planned for Jan-
uary 19 and 20, announces Prof. L. C.
Chadwick. The dates are the two
days preceding the meeting of the
Ohio Nurserymen's Association, to
be held at Columbus.

"Even in the face of the existing
circumstances," states Dr. Chadwick,
"we feel it is desirable to hold the
annual short course at Ohio State
University this year. It will, however,
be somewhat streamlined and lim-
ited to two days instead of the usual
three. Discussions will pertain mostly
to problems arising because of cur-
rent emergencies."

WISCONSIN DATES SET.

The dates of February 11 and 12,
1943, have been set by the board of
directors for the annual meeting of
the Wisconsin Nurserymen's Associa-
tion, to be held at the Schroeder
hotel, Milwaukee.

Richard P. White, A. A. N. execu-
tive secretary, has promised to be in
attendance and appear on the pro-
gram. He advised the directors to go
ahead with the annual meeting of the
association, stating, "To the best of
my knowledge, none of the usual
winter meetings are being canceled
due to the transportation situation.
In fact, Mr. Eastman has stated in
his original announcement calling for
the cancellation of conventions that
he did not mean business conventions
such as ours and yours would be. He
was aiming at the social affairs."

TAXUS

cuspidata, brevifolia,
media, capitata, hicksi,
aurea and repandens

in medium and large sizes

Also Boxwoods and
Juniperus pfitzeriana

Ask for price list

W. A. Natorp Co.

4400 Reading Rd.
Cincinnati, Ohio

JUNIPERS!

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Truck or carload lots of

Juniperus Virginiana

Juniperus Virginiana Platte River

Juniperus Scopulorum

In natural, seminatural and sheared
specimens in all grades from 5 to 14
feet.

Full and dense from ground up.

Prairie Gardens Nursery Co.

McPherson, Kansas

Our soil is a heavy black loam—pro-
ducer of strong, vigorous trees with an
abundance of roots; ideal for balling;
carries and handles without crumbling.
Our nursery is served by the Santa Fe,
Rock Island, Union Pacific and Missouri
Pacific railroads.

EVERGREENS

Fine assortment of the best
types of B&B Evergreens.

HOLTON & HUNKEL CO.

Milwaukee, Wis.

Nursery at Brown Deer, Wis.

Juniper Glauca Hetzi

Will become a leading Evergreen.
Write us about it.

LINERS, T., 6 to 9 ins.
\$17.50 per 100; \$100.00 per 1000.

Fairview Evergreen Nurseries
Fairview, Pa.

Lining-out Evergreens

Good assortment of standard varieties.
Price list on request.

SCOTCH GROVE NURSERY

SCOTCH GROVE, IOWA

Diseases of Trees

Gleanings from the Latest Reports of Scientific Research

By Leo R. Tebon

CONTROL DAMPING-OFF OF LONGLEAF PINE.

Damping-off of longleaf pine seedlings in southeastern nurseries can be controlled to a practical degree either by the use of old pine sawdust as a seed cover or by the sprinkling of seedlings with Semesan, reports William C. George, of the federal division of forest pathology, after having conducted numerous tests since 1937 in nurseries located in North and South Carolina and Georgia.

Longleaf pine is unique among pines in that, in its seedling and early sapling years, it maintains a rosette habit of growth. Because of this characteristic, which tends to hide some of the usual symptoms of damping-off, and because diseased seedlings are often peppered or coated with the sand or silt of the seedbed, the damping-off of this pine species is often called sand-splash or sand-silt-drift. The fungus chiefly responsible for the damping-off of longleaf pine is a rhizoctonia. Occasionally fusarium, trichoderma and botrytis appear to cause the malady, but pythium, though an important cause of damping-off of other pines, seems not to be concerned in longleaf pine damping-off.

In the early stages of the disease as it appears on longleaf pine, the bases of the cotyledons, the lower needles and the stems of seedlings appear water-soaked and sometimes purplish. Roots may decay rapidly from the soil line downward to a depth of three-fourths of an inch. Later, the diseased needles become yellow, droop and eventually turn brown. However, the rosetted growth obscures the decayed stem and the falling over of the seedling, which are quickly recognized characteristics of the disease in other pine species.

There are a number of factors that contribute to the occurrence of severe attacks of damping-off. Sheet erosion and cultivation and weeding practices may tend to mound soil about young plants, thus reducing aeration and bringing the damping-off fungi into close contact with the susceptible young, succulent parts of seedlings. Drill sowing of seeds and spring sowing both appear to be accomplished by heavier attacks than are broadcast sowing or fall sowing.

Neutral or alkaline soils seem to favor damping-off, although severe attacks can occur when the soil is very acid. Also, seeds 2 or more years old appear to produce seedlings more susceptible to attack than those produced by new seeds.

In various control tests, treatment of the soil with formaldehyde prior to seeding failed to reduce materially the loss from damping-off. Spraying with 2-3-50 and 4-4-50 Bordeaux mixture and with Cuprocid (one pound to 100 gallons of water) likewise failed to reduce significantly the late losses.

Semesan, on the other hand, reduced the amount of loss from fifty per cent to ten per cent. The Semesan was applied with a sprinkling can at the rate of one-tenth avoirdupois ounce in three-fourths pint of water per square foot of seedbed area. Because of the injurious burning effect of Semesan, which contains mercury as one of its elements, it is necessary to make applications either late in the afternoon or on cloudy days.

Among seeding and cultivation practices tested, the one giving most promising results was that of using sawdust as a seed cover. In using sawdust, the seeds are sown in shallow, uncovered rows and subsequently covered with sawdust. The loss from damping-off under such conditions was about twenty-five per cent less than that in seedbeds in which the seeds were drill sown and soil was covered. It is important that sawdust should be old and that the cover made with it be shallow—only about one-quarter inch thick. Where new sawdust is used or where the cover is one-half to three-fourths inch thick, damping-off losses will be greater.

That the effect of sawdust in protecting against damping-off may be largely mechanical is suggested by the fact that the use of a pine needle mulch one-quarter inch deep may also be somewhat effective in reducing losses. Also, working the soil away from the bases of seedlings at frequent intervals succeeded experimentally in nearly eliminating the disease, while in adjacent unhandled beds the losses were fifty per cent or more.

Other chemicals apparently have some value as possible treatments for soil prior to seeding. Ferrous (iron)

sulphate, without delaying or reducing seedling emergence and without injuring germinating seeds or seedlings, sometimes but not always reduced the amount of damping-off loss. The effect of this chemical is apparently that of increasing the acidity of the top half inch of soil; consequently the higher the rate of application of the chemical, the greater is the degree of control likely to be obtained. In some soils three-eighths ounce per square foot (dissolved in one pint of water) may give good control, but in other soils as much as one ounce per square foot may fail to control the disease. Commercial orthophosphoric acid, although experimentally effective to the extent of reducing loss from eight to two per cent in beds where it was applied at the rate of one-eighth fluid ounce per square foot of area, is somewhat less effective than ferrous sulphate. Since both chemicals operate by changing the acidity of the top half inch of soil, a combination of the two holds some promise, if further tests confirm first results. Such a combination would have the advantage, which neither chemical possesses alone, of not inducing mineral deficiencies in the soil.

At the present time, however, it seems likely that in most nurseries the use of highly viable seeds, the sowing of seeds in shallow trenches and the covering of the seeds to a depth of one-quarter inch with old sawdust constitute the most practical



MYROBALAN SEED

Nation's Leading Source

Grown in our own orchard, processed by our experienced men. Cleaned and cured with special equipment, assuring high germination. Immediate delivery.

PEACH PITS

We are booking orders for California Lovell peach pits. Ample supply of high quality seed. Write today for quotations.



California
NURSERY COMPANY
Niles, California

SPRUCE TREES BARE ROOT

The demand for Spruce Trees, bare root, will be good this season. These trees will pack light and may be used as windbreaks, in window boxes or urns, or for small Christmas trees. We offer for immediate shipment or for next spring's shipment:

Bare Root—First-class Trees.

NORWAY SPRUCE

	Per 100	Per 1000
18 to 24 ins.	\$35.00	\$300.00
2 to 3 ft.	45.00	\$400.00

(Note: 30 trees may be purchased at the hundred rate; 300 trees at the thousand rate. Boxing additional at cost.)

Write for our price list of a complete assortment of hardy northern-grown stock.

See our page ad in the October 15 issue.

SHERMAN NURSERY CO.
Charles City, Iowa

ROSES—ROSES—ROSES 400,000

Two-year, Field-grown, Budded on Multiflora Understock, Dusted regularly during growing season with Copper Sulphate.

Ask for Quotations—Send us your Want List for Lowest Prices.

NORTH TYLER NURSERIES
Sam P. Ford & Sons,
R. 5, Tyler, Texas.

LINING-OUT EVERGREENS

Well Rooted Plants

All 5 to 8 inches.	Per 100	Per 1000
Arborvitae, Pyramidalis	\$6.00	\$50.00
Juniper, Irish	6.00	50.00
Retinospora Plumosa.....	6.00	50.00
Taxus Cupidata	6.00	50.00

ONARGA NURSERY CO., INC.
Onarga, Illinois



Wholesale growers of the best
Ornamental Evergreens,
Deciduous Trees,
Shrubs and Roses.

Write for our current trade list.

THE KALLAY BROTHERS CO.
Painesville, Ohio

EVERGREENS

Liners and Specimens

SNEED NURSERY CO.
P. O. Box 798, Oklahoma City, Okla.



EVERGREENS

For Seventy-eight Years
Growers of Quality Evergreens
Lining-out Stock a Specialty
Write for Trade List

EVERGREEN NURSERY CO.
Established 1864 : STURGEON BAY, WIS.

method of damping-off control in longleaf pine seedbeds. Added protection against infection should be given, of course, by the prevention of sheet erosion and by the use of weeding and cultivation methods that tend to keep soil away from the bases of seedlings.

L. R. T.

CONTROLS OF FIELD MICE.

The season when field mice do the greatest damage to orchards and gardens is close at hand. Main damage done by mice is the girdling of fruit trees in fall, winter and spring, when there is little green vegetation for mice to eat. Control of mice must be accomplished in fall, before snowfall, to be effective. Mechanical protectors, clean cultivation, trapping, poisoning and natural enemies of mice may all be used to get rid of them.

Mechanical protectors of wire screen, burlap or paper may be wrapped about the trunks of trees. Cinders or sand may be placed about the base of each tree to prevent burrowing by the mice, under cover of grass.

Trapping will control mice only in small orchards or gardens. Poisons are most effective in large orchards. Both poison baits and traps must be placed in the runways of the mice to be effective.

RABBIT REPELLENT.

The only repellent that proved to be safe to use on trees, as well as effective against cottontail rabbits, in tests at the Michigan experiment station, was a formula consisting of rosin and ethyl alcohol. In these trials the trees treated with the rosin-linseed oil formula showed positive evidence of restricted growth.

The dark-colored, cheaper grades of rosin and the cheaper grades of denatured commercial ethyl alcohol were found to be as satisfactory as the higher grades. So-called antifreeze alcohol may be used if it does not contain methyl alcohol. Methyl alcohol (wood alcohol or methanol) does not dissolve rosin.

A satisfactory coating may be made by dissolving seven pounds of rosin in a gallon of alcohol. These proportions are slightly more than one part of rosin to one part of alcohol, by weight. A good method of mixing is to pulverize the rosin and add it to the alcohol in a container with a cover tight enough to allow shaking and prevent evaporation. If the container is kept in a warm room and shaken occasionally, the rosin will dissolve more rapidly. No heat should

EVERGREENS for Fall Delivery

One of the largest stocks
and most complete assortments
in the middle west.

Low Prices

Send for Price List
Ready Now.

THE WILLIS NURSERY CO.
Progressive Nurserymen
Ottawa, Kansas

VERHALENS

Are growing Texas Roses of
Quality for the new nursery
season.

Write for list of varieties.

EVERGREENS BOXWOOD - SHRUBS

VERHALEN NURSERY COMPANY
Scottsville, Texas
Wholesale Only

CHASE OFFERS

For '42-'43

Sturdy and pot-bound.

Abelia Edward Goucher, 2 1/4-in. pots, 12c
One of the finest new items in the
broad-leaved line. Flowers are large
and rich pink. Foliage very glossy.
Excellent compact pendulous habit
of growth. Hardy as *grandiflora*.

Koonymus patens, 2 1/4-in. pots, 8c
Ilex crenata rotundifolia, 3 1/4-in. pots, 12c
"Watch Chase's Liners Grow
Into Dollars For You."

CHASE NURSERY CO.
Chase, Ala.

TSUGA CANADENSIS

50,000 Hemlock, blocky transplants,
10 to 15 ins., \$80.00 per 1000.
4,000 *Juniperus Pfitzeriana*,
24 to 42 ins., \$1.50 to \$2.00 each.
1,000 *Colorado Blue Spruce*,
8 to 8 ft., \$1.50 to \$2.50 each.

HOME NURSERY CO., Fort Gay, W. Va.

DEODARA CEDAR

AND OTHER SPECIMEN GRADES OF
EVERGREENS

Finest Quality Priced Right.

HOWARD-HICKORY CO. Hickory, N. C.

COLORADO-GROWN CHINESE ELMS

Specimen Trees, light grades and
seedlings

ENGLISH ELM (*Ulmus Campestris*)
Now booking orders in combination
cars to central and eastern points.
SWINK NURSERY COMPANY
Swink, Colorado.

be applied. To heat the solution not only is dangerous, but may drive off enough alcohol to alter the composition of the mixture. Handled in this fashion, the rosin is usually dissolved in twenty-four hours. It is well to mix at one time only as much as will be used in a few days.

Water causes a white precipitate to be formed in this solution. If much of this precipitate is present, it will greatly alter the consistency of the repellent, or even seriously interfere with its application. To avoid contamination of the reserve stock, a smaller container should be used in the orchard or nursery. The brush will pick up water from snow or damp soil and carry it into the field container. Therefore, the repellent solution should not be poured from the field can back into the reserve stock.

Trees treated with the rosin-alcohol repellent always turn white in the next rain or snow. This does not change the effectiveness of the repellent. Indeed, a white surface reflects sun rays and may minimize winter injury.

The trees should be treated in fall and only when the bark is dry. One application of this repellent protects all winter. It should be applied to trees with a cheap paintbrush. Brushes, containers and gloves may be cleaned with alcohol. Cottontail rabbits can reach about two feet; therefore young trees should be painted two feet higher than the snow is expected to drift. Scaffold limbs of low-branching trees should be treated when they are within the zone of possible rabbit damage.

Field tests show that one gallon of repellent will be sufficient to treat about 150 to 200 2-year-old nursery trees, the exact number depending on the height of treatment and size of tree. One man found that he could coat about thirty-five 4-year-old apple trees in an hour.

PORTLAND CLUB MEETS.

The Portland Nursery Club held its monthly meeting at the Bohemian grill, Portland, Ore., November 4. A fine representative meeting was enjoyed.

Melvin Surface, president, held the gavel and called upon a number of those especially engaged in or directly assisting in the war work. Those responding were Avery Steinmetz, Sam Rich, Dr. McWhorter and John Wiemann.

The trend of the discussion seemed to lead to the fact that whatever was carried along in addition to the nursery business should not interfere with

the continued production of first-class nursery stock. The present time is no time to conduct experiments on a major scale, but to hew to the line of specialty growing of horticultural crops. In other words, stick to those items that will be of value both to the producer and to the consumer.

Dr. McWhorter provided a brief résumé of the fine work being carried on at Oregon State College, where under more than 50,000 square feet of glass and under forced conditions, many different varieties of commercial specialty seeds are being produced. These seeds are to be the source of further development of the scarcer kinds of drugs and their derivatives.

The meeting adjourned to reassemble in December, with a full calendar in prospect relative to proposed state legislation requirements and to the need of greater cooperation with the state association, which will hold its semiannual meeting early in the year 1943.

Clayton B. Lewis, Sec'y.

JOSEPH FRIBERG, proprietor of the Hobart Nursery, 203 North Victory, Burbank, Cal., is conducting a closing-out sale of all stock.

DELIVERY problems were the subject of a recent meeting of the Tri-County chapter of the California Association of Nurserymen, at Ventura.

THE weatherman has given nurserymen in the Pacific northwest a bad deal this fall, reports A. H. Steinmetz, of the Portland Wholesale Nursery Co., Portland, Ore. No rain fell until the last week in October, and since then there has been nothing but rain. Stock is of good quality and shipping will soon be caught up. Fruit trees of all kinds and small fruits are in great demand.



SHERWOOD NURSERY CO.
EVERGREENS - Propagators & Growers
141 S. E. 65th Avenue PORTLAND, ORE.

If you have not received your copy of our

1943 Wholesale List write for one today.

Express charges on lining-out stock prepaid to all points in the United States.

For the Trade only.

NURSERY PEST CONTROL.

[Continued from page 8.]

ered trees to heat up in the sun. Although rubberized tarpaulins can no longer be obtained, there are plastic-covered tarpaulins on the market



We are still in business and we have all varieties of seedlings as well as shade trees that are ready for the market. If in need of anything in our line we will appreciate your business. We know that you will not be disappointed with our stock.

PACIFIC COAST NURSERY

John Holmason, Prop.

2244 N. Skidmore Court
Portland, Ore.

ACRES and ACRES OF QUALITY ROSEBUSHES

grown annually.

OVER 100,000

EVERGREEN SHRUBS

including

Arbor-vitae, Chamaecyparis, Juniper
Spruce: Koster and Colorado Blue
Mugho Pine, Yews, etc., etc.

Write for our catalogue.

Mountain View Floral Nurseries
Troutdale, Oregon

Leading grower since 1900

LINING-OUT STOCK

Our 1942-43 List of Lining-Out and Planting Sizes of Broad-Leaved and Conifer Evergreens is now ready-

A CARD WILL PUT YOURS
IN THE MAIL

"Our Business Is Growing"

RICHMOND NURSERIES
Richmond Beach, Wash.

which are airtight. Last July the agricultural commissioner in Santa Cruz and I fumigated a lot of narcissus bulbs in an old galvanized iron fumigation chamber. We dropped the open-sided box over the bulbs in boxes, put in an electric fan, covered the edges with soil and applied the proper amount of methyl bromide by means of a 1/2-pound squirrel applicator. No leaks could be detected around the edges of the box and the results were entirely successful.

A fern grower in southern California built his own fumigation chamber with tar paper, secondhand lumber and laths.

Pears and potatoes are fumigated in refrigerator cars; so it looks as though some of the old cars around the country might be sealed up and used as permanent fumigation chambers. These are just a few ideas of what can be done in case of necessity.

Hydrocyanic gas is the standard gas for the fumigation of citrus trees in orchards and is used in nurseries for the fumigation of greenhouses and the fumigation of deciduous nursery stock and hardy evergreen stock. It can be used at lower temperatures than methyl bromide, but is more likely to injure plant life, especially when the foliage is wet. Citrus trees or fruit trees growing in nursery yards are sometimes fumigated under canvas tents for red scale and other scales. Calcium cyanide dust, of course, is an excellent material for treating ant nests, but, like other, toxic gases, must be handled carefully to avoid injury to the operator.

There are a few newer insect pests which might be worth mentioning briefly.

The new scale insects have been taken a number of times on camellias imported from the southern states, but all plants from Alabama, the principal shipping state, are now being fumigated at origin, and our checks have shown that the treatment is successful. One of these scales, *Lepidosaphes camelliae*, has been found in three counties of California, but it does not seem to be so important as *Parlatoria camelliae*, which is already established here.

Several new mites have become pests in the state, among which may be mentioned *Tenuipalpus bioculatus*, which attacks privet in this part of the state and is a pest of fuchsia in southern California.

In conclusion, it might be said that equipment of all sorts will be harder and harder to get, so that all spraying, dusting and fumigation equipment on hand should be taken care of carefully. Certain insecticides will

PORTLAND WHOLESALE NURSERY CO.

306 S. E. 12th AVENUE Avery H. Steinmetz PORTLAND, OREGON

Quality Stock

CONIFERS AND BROAD-LEAVED
EVERGREENS
SHADE AND FLOWERING TREES
FRUIT TREE SEEDLINGS
FRUIT TREES
DECIDUOUS SHRUBS
VINES AND BULBS
PORTLAND ROSES

Combination Carloads will be made up for Eastern points during the Spring season.

We would call your attention especially to our High Quality Shade and Flowering Trees.

Write us for quotations.

Write for our Catalog

MILTON NURSERY CO.

A. Miller & Sons, Incorporators
MILTON—Since 1878—OREGON

OUR SPECIALTIES

Birches—Flowering Cherries, Crabs and Plums—Chinese Elm—Hawthorne—Lilacs—Lindens—Flowering and Globe Locusts—Columnar, Globe, Norway and Schwedler Maples—Mountain Ash—Oregon Grape—Oriental Plane—Willows.

FRUIT TREE SEEDLINGS

Send us your Want List for Quotations.
Combination Carloads to Eastern distributing points at minimum freight cost.

A Complete Line of OREGON-GROWN NURSERY STOCK

DOTY & DOERNER, INC.

6691 S. W. Capitol Highway
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Headquarters for . . .

Fruit and Shade trees with vigorous roots and sturdy stems.
Flowering trees, Weeping trees.
Shrubs, Roses, Small fruits.

Catalogue on request

RICH & SONS NURSERY

Route 4 Hillsboro, Oregon

be scarce because of war needs and shipping conditions. Labor is also getting scarcer and scarcer. So it will take a lot of hard work and careful and selective use of the material and equipment on hand to protect the nurseryman's crops from insect pests.

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees
Roses

Grown right and packed right.

Combination carloads to Eastern distributing points will save you on freight.

OREGON'S BEST SOURCE OF GOOD ROSES

is

PETERSON & DERING, INC.

Wholesale Rose Growers
Scappoose, Oregon
1942-43 List Now Ready.

LEADING GROWERS of

CUTLEAF WEEPING BIRCH,
Schwedler and Norway Maple,
Fine 2 and 3-year stock.
Also Hawthorn, Crab, Flowering Cherry and Pink-
flowering Locust.

Ask for Price List.

MOTZ BROS. NURSERIES
P. O. BOX 42, Gresham, Ore.

California Field-grown ROSEBUSHES

Dependable

Howard Rose Co.
HEMET, CALIFORNIA



HANSEN BUSH CHERRY**Good Fruit — Beautiful Ornamental**

Have a splendid lot of the Latest Improved Selections. One of the fastest selling, fruit and ornamental plants. Feature them in your catalogue or with your agents. We can supply many photos, cuts, colored prints, etc.

HANSEN BUSH CHERRY

Size	Grade	Per 100	Per 1000
12 to 18 in., 2-yr., br....	\$ 7.50	\$ 50.00	
18 to 24 in., 2-yr., br....	10.00	75.00	
2 to 3 ft., 2-yr., br....	15.00	125.00	
Super Grade, 2-yr., br....	20.00	170.00	

Also a Complete Line of
Prof. N. E. Hansen and Carl A. Hansen
Plant Introductions

Oka Cherry—Red Flesh Crab—Anoka
Apple—Dolke Crab—Red Silver Crab—
Hopa Crab—Waneta—Sapa—Opata and
Hanska Plums
Hardy Manchurian Apricots

Write For Special Wholesale Price List

CARL A. HANSEN NURSERY

Brookings, S. Dak.

Red Raspberry Plants**New Red Rhubarb**

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Americana Plum Stocks**Northern Apple Stocks****Forest Tree Seedlings**

Ash—American Elm

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SMALL FRUIT PLANTS

Evergreens—Shrubs
Lining-out Stock

Send for Complete Trade List

W. N. SCARFF'S SONS

New Carlisle, O.

Our Specialties are
GRAPEVINES, BOYSENBERRIES,
BLUEBERRIES, BLACKBERRIES,
RASPBERRIES

Large quantity of stock
General Line of Small Fruit Plants
Trade list sent on request.

L. J. RAMBO'S WHOLESALE NURSERIES
Bridgman, Mich.

PEACH PITs

Our Pits Compare Favorably
With the Best

HOGANSVILLE NURSERIES
HOGANSVILLE, GEORGIA

**FRUIT TREES—GRAPES—
PECANS—FIGS**

Good line of most Fruits and Shrubs
We invite your inquiries.

COMMERCIAL NURSERY CO.

Decherd, Tenn.

—DOGWOODS—

CORNUS FLORIDA RUBRA, Pink
Dogwood 4 to 5 ft., transpl., branched,
bare roots, \$1.50 each.

CORNUS FLORIDA, White Flowering
Dogwood 4 to 4½ ft., transpl., branched,
60c each.

Less 10 per cent in 25 lots.

EVERGREEN GARDEN NURSERY - McMinville, Tenn.

SOUTHWESTERN NEWS.

E. F. Weaver, Wichita, Kan., has closed his greenhouses and is operating his nursery business only, chiefly on a cash-and-carry basis.

F. C. Schnitzler, Wichita, Kan., is building an underground storage house 24x40 feet, of concrete block construction with an insulated roof.

Charles Scott, Prairie Gardens Nursery Co., McPherson, Kan., and Mrs. Scott spent a week visiting their daughter in Denver early in November.

Paul Baker, Enid, Okla., who has been in the landscape business, is now in charge of the grounds of Hilltop Manor, a federal housing project in Wichita, Kan. Assisting him is R. H. Stone, a nurseryman of Wichita.

C. D. "Bill" Wagoner and Mrs. Wagoner went on an extended fishing and hunting trip with a party in Colorado in October. One of the party shot an elk, which furnished venison for a dinner in honor of Com. W. C. King, who is in charge of the naval air-training base at Hutchinson.

The Western Nurseries have established a cash-and-carry sales yard, 50x100 feet, at 602 South Oliver, Wichita, Kan. A new road is being cut through one side of the property and will give the sales yard a fine corner location in the heart of a new residential development.

J. Frank Sneed, Sneed Nursery Co., Oklahoma City, Okla., made a trip calling on the trade in Kansas and Missouri early in November.

H. Gestefeld, formerly of Alamosa, Colo., is starting a large retail nursery at 110 Kenwood drive, Pueblo.

ON WISCONSIN PROGRAM.

Dr. H. B. Tukey, director of research at the New York agricultural experiment station, will be a featured speaker on the fruit growers' program of the Wisconsin Horticultural Society at its seventy-fourth annual convention, at Fort Atkinson, November 17 and 18. On the first day he will tell what eastern fruit growers are thinking and doing with regard to apples and on the second day he will give an account of his 25,000-mile trip last year through the fruit-growing sections of the country.

Dr. W. G. Brierley, of the Minnesota experiment station, will give two talks, one on pruning, spraying and fertilizing in relationship to tree growth and production, and another on recent discoveries on winter hardiness and winterkilling. In addition, several speakers from the Wisconsin station will appear on the program.

SEEDS**Colorado Evergreens**

Trade Packets, 25c each

	Per lb.
Abies concolor, White Fir.....	\$2.00
Juniperus scopulorum, Silver Cedar 1.00	
Picea engelmanni, Engelmann	6.00
Spruce	6.00
Picea pungens glauca, Blue Spruce	8.50
First Grade, from shiners.....	3.75
Standard	6.50
Pinus contorta, Lodgepole Pine....	2.00
Pinus ponderosa, Western Yellow	4.50
Pine	4.50
Pinus flexilis, Timber Pine.....	4.50
Pinus aristata, Foxtail Pine.....	4.50
Pseudotsuga douglasii, Douglas Fir. 4.50	

Ask for quantity prices

Upton Gardens
Colorado Springs
Colorado

Send for New Seed List.**A. B. C.****"Supreme" Quality****SEEDS — PLANTS — BULBS**

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IF YOU plant

**Tennessee Natural
Screened Peach Seed**

you will not be sorry. Reliable and Dependable. Write for prices on 1941 crop. 6000 to 7000 seeds to the bushel (50 lb.)

Fruit Trees, Shade Trees,
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Shrubs and Evergreens

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North Dakota and Montana Seeds

Northern-grown Tree, Shrub and Wild
Flower seeds. Wholesale crude botanicals.

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We accumulate several thousand pounds of apple seeds each fall season. Interested in contracts for all or part of our production.

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Yakima, Washington

**REAL
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SELLING BETTER LAWNs
Sell the seed that makes sturdy, enduring, beautiful lawns. Use our service to secure special mixtures for your locality.

F. H. **WOODRUFF** & Sons, Inc.
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Five lines, \$1.00,
each additional line, 20 cents,
per insertion.

Let these little liners move
your stock easily and cheaply.

Peonies: Tree and Herbaceous, best varieties.
Oberlin Peony Gardens, Sinking Spring, Pa.

BUONYMUS COLORATUS (Purple Winter-
creeper)—3-yr., \$3.00 per 10, \$25.00 per 100.
WAYNESBORO NURSERIES, Waynesboro, Va.

NURSERY STOCK. Ask for New List of Lining-
out stock for immediate and spring delivery.
WESTBURY ROSE CO., Inc., Westbury, N. Y.

TREE SEEDS. White Pine, Balsam Fir, Hem-
lock, Prostrate Juniper. Prices on request.
BRADEN NURSERY, South Windham, Me.

CUT-LEAVED WEEPING BIRCH—6 to 8 ft.,
\$14.00 per 10; 8 to 10 ft., \$20.00 per 10; 10 to
12 ft., \$25.00 per 10.
WAYNESBORO NURSERIES, Waynesboro, Va.

Let us quote you on the following: Juniperus
Pateriana and Sabina, finished stock; American
and Chinese Elm, up to 4 in.; Burr Oak, Hack-
berry and Norway Maple, up to 3 in.
MERTEL NURSERY, Peru, Ill.

NORWAY MAPLE—3 to 3½-in. caliper, \$35.00
per 10, \$225.00 per 100; 3½ to 4-in., \$40.00 per
10, \$275.00 per 100. Larger sizes quoted on
request.
WAYNESBORO NURSERIES, Waynesboro, Va.

**HEAVY trimmed nursery-grown Balsam Christ-
mas trees**, non-shedding, 10 to 16 ft., 25c per ft.
of height. Write for prices on wreaths, roping
and baled branches.
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PRIVET HEDGE—Offered in both California
and Amur River South. 2 to 3 ft., \$6.50 per 100,
\$60.00 per 1000; 3 to 4 ft., \$10.00 per 100,
\$90.00 per 1000. All 2-yr. well branched.
WAYNESBORO NURSERIES, Waynesboro, Va.

COLLECTED STOCK.
Collected Hemlock seedlings, Hemlock trans-
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PEONIES, SPECIAL OFFER.
We are moving Festiva Maxima, white; Fra-
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time, \$10.00 per 100.
PHIL LUTZ PEONY FARM, BOONVILLE, IND.

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\$7.50 per 100; \$65.00 per 1000.
Picea Fungens Juncea, 6 to 8 in., transplants.
Pinus Mughus, 4 to 8 in., transplants.
HESS' NURSERIES,
Mountain View, N. J.

25,000 Sycamore Trees. Shrubs, 10,000 lbs. 1942
crop seeds: Kentucky Coffee tree beans, per lb.,
35c; Osage Orange, 50c; Sycamore Platanus, 90c;
Allanthus, 40c; Regels and Amur River North
Privet, 60c; Catalpa, 50c. 100,000 8-in. cuttings.
Schroeder Nursery Co., Granite City, Ill.

ARP-GROWN ROSES direct from field. That's
your best bet! Avoid paying for double handling;
protect your customers from devitalized rose
bushes. Wholesale catalogue only. (Ask for price
on new attractive root-wrap.)
ARP NURSERY COMPANY, Box 867, Tyler, Tex.

UNDERSTOCKS.
Understock of Rhododendron Ponticum, Juniper
Virginiana, Norway Spruce, American Arborvitae,
Retinospora, Japan Maple. Write for Prices.
RHODE ISLAND NURSERIES,
Newport, R. I.

ROSES, 2-YEAR, FIELD-GROWN.
(Budded low.)
New crop, now ready! Acres of the finest roses
we have ever produced, grown on our own farms
and shipped direct. Satisfaction guaranteed.
PRICES are on strictly well graded stock.
No. 1, 10c; No. 1½, 8c; No. 2, 6c.

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Briarcliff, K. A. Victoria,
Caledonia, Pink Killarney,
Condessa de Santiago, Lady Hillingdon,
Crunder, Los Angeles,
Dainty Bess, National Emblem,
Edith Nellie Perkins, Pres. Hoover,
Editor McFarland, Red and Pk. Radiance,
E. G. Hill, Salmon Radiance,
Etiole de Hollande, Syracuse,
Francis Scott Key, Tallman,
Glimmers as follows: Am. Beauty, Austrian
Copper, Dainty Bess, Dr. Huey, K. A. V., E. G.
Hill, P. K. Druschki, M. Neil, Paul's Scarlet,
Red and Pk. Radiance, Snow Queen, Tallman and
others, including 20 varieties of POLYANTHUS.
Write for complete list, or order direct.
VERMAY NURSERY CO., Dept. A, Tyler, Tex.

ORIENTAL WALNUTS—Transplanted, 4 to 6
ft., \$3.00 per 10, \$25.00 per 100; 3 to 4 ft.,
\$2.50 per 10, \$20.00 per 100.
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ARP NURSERY CO., a dependable source for
Pecan, Fruit and Rose stock on unexcelled root
system. Wholesale catalogue only. Box 867,
Tyler, Tex.

Early-bearing bred-up budded and grafted
Paperbark Pecan trees, Peaches, Pears, Figs,
Grapes, Plums, Apples, Strawberries, Youngber-
ries, Boysenberries. New crop Pecan nuts. Cata-
logue free. Bass Pecan Co., Lumberton, Miss.

WHITE FRINGE (Chionanthus Virginicus)—
Transplanted, well branched, 2 to 3 ft., \$3.00
per 10, \$25.00 per 100; 3 to 4 ft., \$3.75 per 10,
\$30.00 per 100; 4 to 5 ft., \$6.00 per 10.
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Ribes Alpinum, 24 to 30 in. \$28.00 per 100
Ribes Alpinum, 30 to 36 in. 35.00 per 100
Mountain Ash, 6 to 8 ft. 70.00 per 100
Mountain Ash, 8 to 10 ft. 90.00 per 100
Rosa Setigera, 2 to 3 ft. 15.00 per 100
ESCHERICH'S NURSERY,
Sta. F. Milwaukee, Wis.

BOXWOOD—Sempervirens, transplanted, 4-yr.,
6 to 8 in., \$12.00 per 100, \$100.00 per 1000; 8
to 10 in., \$20.00 per 100, \$175.00 per 1000; 10
to 12 in., \$25.00 per 100, \$225.00 per 1000.
Suffruticosa Dwarf Edging Boxwood, 4-yr., 4
to 6 in., \$15.00 per 100, \$125.00 per 1000, roots
puddled.
WAYNESBORO NURSERIES, Waynesboro, Va.

LARGE SHRUBS.
Berberis Thung, Atropurpurea, 3 to 3½ ft.
Callicarpa Purpurea 4 to 6 ft.
Foraythia in varieties 5 to 7 ft.
Hamamelis Virg. 4 to 7 ft.
Loniceria Tatarica Grandiflora, 5 to 7 ft.
Weigela Floribunda 4 to 6 ft.
and other varieties. Ask for Price List.
BULK'S NURSERIES, Babylon, L. I., N. Y.

FROM ILLINOIS' LARGEST NURSERY
Samples of our 1943 LOS List. Per 10 Per 100
Hydrangeas, P. G., 12 to 18 in. \$4.50 \$40.00
Loniceria Zabeli, 12 to 18 in. 4.00 35.00
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Rhamnus Frangula, 18 to 24 in. 2.50 17.50
Syringa Vulgaris, 12 to 18 in. 2.50 20.00
NAPERVILLE NURSERIES, INC., Naperville, Ill.

UNDERSTOCKS.
Juniperus Virginiana, transpl. 100 1000
Magnolia Kobus, edg. 8.50 75.00
Picea Excelsa, transpl. 6.00 50.00
Cornus Florida, edg. 3.00 25.00
Thuja Occidentalis, transpl. 7.50 65.00
Thuja Orientalis, transpl. 5.00 40.00

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ORIENTAL POPPY
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New and Double
Grows 30 inches high
Peony-like flowers
will keep in water
An excellent garden variety
Planting stock only
\$4.00 per 50; \$7.50 per 100.
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FALL SPECIALS.
Per 10 Per 100
Erica Cinerea, 3x6 in. \$1.50 \$10.00
Calluna Vulgaris Nana, 3x3 in. 1.00 8.00
Calluna Vulgaris Minima, 3x3 in. 1.00 8.00
Calluna Vulgaris Pygmaea, 3x3 in. 1.00 8.00
Gentiana Septemfida 1.50 10.00
Hex Crenata, 3x3 in. 2.00 15.00
Perla Floribunda, 6x6 in. 1.50 10.00
Kinnikinnick, ex. 3¼ to 8-in. pots. 1.00 8.00
Write for list.

L. N. Roberson, 1540 E. 102nd St., Seattle, Wash.

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Excellent quality. Approved credit: 2 per cent
10 days, net 30 days. 3 per cent cash with order.
Barberry Koreans, 2 to 3 ft. \$0.20
Caragana Frutescens, 1½ to 2 ft.15
2 to 3 ft.25
Caragana Lorbergi, lining-out grade.12
2 to 3 ft.30
3 to 4 ft.85
Daphne Mezereum, 15 to 18 in., B&B.60
1½ to 2 ft.75
Forsythia Spectabilis, standard form, 4-ft.
stem 1.25
Prunus Triloba, standard form, 4-ft. stem.75
Viburnum Carlesii, 12 to 15 in.85
15 to 18 in. 1.00
Grafts25
Pachysandra Terminalis, fine, heavy plants.
2-yr. plants, \$5.00 per 100; \$45.00 per 1000.
1-yr. plants, \$3.50 per 100; \$30.00 per 1000.
Flowering Cherries, in variety, from 2 to 3 ft.
to 10 to 12 ft. Ask for prices.
Taxus, Upright, lining-out sizes, 1½ to 2 ft., 2
to 2½ ft. Spreading, lining-out, 12 to 15 in.,
15 to 18 in.

Hybrid Lilacs, own-root, lining-out and finished
stock, finest varieties. Ask for list.
Malus, flowering crab, 15 varieties, from lining-
out sizes to 10 to 12 ft. Ask for list.
Tree Peonies.

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New Wholesale Hardy Plant Catalogue.
Use it as a reference book and as a source of
supply for the fine perennials that are really do-
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Your copy is ready now. Write for it.
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WANTED**WANTED**

Ariens-Tiller or Rototiller in good condition.
Must be reasonable. Will pay cash.
Alex Heins, Center Road Nursery, Saginaw, Mich.

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EXCHANGE—Hardy Mums, choice varieties,
field clumps, 10c. Also Elm, Norway Spruce and
Double Tiger Lily bulbs, 6c. Want Nursery Stock
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Mikolite mineral soil conditioner is now avail-
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Unusual and outstanding as a mulch and sprout-
ing medium.

\$27.50 per ton. F.o.b. plant, ten lots.
Mail postcard for sample and literature.

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Planting Foremen. Interested in two ex-
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know materials and general landscape
service work. Men who can manage men
as well as work themselves. State expe-
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Greenhouse helper with experience in
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trade. Steady employment. Prefer to
have middle-aged or older man.

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BUSINESS OPPORTUNITY

Wanted—A capable experienced nursery-
man to manage an old established
nursery in the middle west, located on
a main highway just inside the city
limits of a good-sized city with good
local trade. Splendid shipping point,
complete facilities with brick office, stor-
age and railroad siding. 240 acres of
rich productive land that will grow high
quality nursery stock. Present business
mostly wholesale and local retail cash
and carry, some landscape business.
Well located for successful operation of
any branch of the nursery business.
Owners will sell one-half interest in
nursery plant and business, renting fa-
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A real opportunity for the right man
who must be an experienced nurseryman
with successful business experience.
Not much capital required, as owners
are able to finance the business. Will
expect good references. Address No. 251,
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Book A. Illustrates in full color 235 standard nursery items, brief description, substantially bound. Price in small lots, 75c each.

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A pocket-size 48-page booklet. Very complete but concise information, well illustrated. Helpful in preventing claims for dead stock that cost nurserymen money. Sample, 10c. Write for discounts on quantities.

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DRESHER, PA.

PROTECT TREES - SHRUBS against Rabbits with COPPER SOAP RODENT REPELLENT

Easily applied — economical — effective. Single application lasts an entire year.
Quart, \$1.00 — covers 50 trees;
Gallon, \$3.00; 5 gallons, \$12.50.
Write for detailed literature.

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Write for FREE Catalog!

Nursery Spades, Knives and Pruning Shears, Budding and Grafting Supplies, Tree Surgery and Lawn Equipment.

96 page catalogue free—write.

A. M. LEONARD & SON
Piquette, Ohio

CATALOGUES RECEIVED.

Kallay Bros. Co., Painesville, O.—Wholesale trade list, nursery stock, featuring evergreens, 72 pages and cover, 4x7 3/4 inches.

Columbia Nursery Co., Portland, Ore.—Wholesale price list, nut and fruit trees, 2 pages mimeographed, 8 1/2 x 11 inches.

Berryhill Nursery Co., Springfield, O.—Wholesale trade list, evergreens and deciduous shrubs, 20 pages and cover, 4 1/4 x 8 3/4 inches.

Baker Bros. Nursery, Fort Worth, Tex.—Wholesale price list, general nursery stock, 32 pages and cover, 5 1/8 x 6 3/4 inches.

Rosemont Nurseries, Tyler, Tex.—Retail price list of roses, color illustrations, 4-page folder, 6 1/4 x 8 1/4 inches.

Fruitland Nurseries, Augusta, Ga.—Price list of general nursery stock, featuring camellias, 48 pages and cover, 7 1/4 x 9 3/8 inches.

Shahan Nurseries, Tullahoma, Tenn.—Wholesale prices on fruit trees, 4-page folder, 3 1/4 x 8 1/2 inches.

Weller Nurseries Co., Inc., Holland, Mich.—Wholesale price list of herbaceous perennials, 16 pages, 6x9 inches.

Bolen Florist & Camellia Gardens, Lucedale, Miss.—Wholesale price list of camellias, 8-page folder, 4x9 inches.

Semmes Nurseries, Crichton, Ala.—Wholesale price list, general nursery stock, featuring camellias, well illustrated, 54 pages and cover, 4x9 1/4 inches.

L. N. Roberson, Seattle, Wash.—Retail price list of rock plants, perennials, dwarf conifers, etc., 4 mimeographed pages, 8 1/2 x 13 inches.

Benton County Nursery Co., Rogers, Ark.—Retail catalogue of nursery stock, featuring fruit trees, well illustrated, 32 pages and cover, 7 3/4 x 10 3/8 inches.

Southern Camellia Gardens, Crichton, Ala.—Retail price list of camellias, 10-page folder, 4 3/8 x 9 inches.

Flowerwood Nursery, Mobile, Ala.—Wholesale price list, camellias and azaleas, 40 pages and cover, 4x9 inches.

THE Woodmont Nurseries, Woodmont, Conn., have been engaged to do the landscape gardening and foundation planting on all Glenmore homes.

BECAUSE of Armistice Day, November 11, the monthly meeting of the Twin City Nurserymen's Association was postponed one week, to November 18.

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Now booking for present and future deliveries.

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COMPANY**
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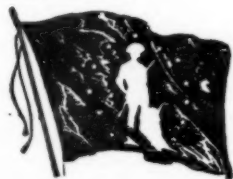
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Along with increased war production goals go increased costs: extra billions which must be raised, and raised fast, to win this war. That means we must raise our sights all along the line, with every firm offering every American with a regular income the chance to buy more War Bonds. YOUR help is asked in encouraging employees to put at least 10 percent of their pay into War Bonds every payday, through the Payroll Savings Plan. For details of the Plan, approved by organized labor, write, wire, or phone Treasury Department, Section T, 709 12th St. N. W., Washington, D. C.



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Books especially valuable for color illustrations

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Contains 275 color pictures and numerous half-tones, with brief text describing each plant and giving essential cultural information. The color records aid in planning harmonious color combinations in the garden. 296 pages.....\$1.98

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Cheap in price (can be given away with the plant). Non-Porous (slow to dry out), produce a better plant than a clay pot, make better satisfied customers and more profit for the Florist and Nurseryman. (See our page advertisement in October 1 issue.)

Send for free circulars and prices. Sample carton sent by mail for 25c.

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ERNEST HAYSLE & SON

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Kill Most Weed Seeds and Cut Hand Weeding Costs

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with Larvacide Fumigation of Potting and Seed Flat Soil. It's done right in bins, deep frames and compost piles. Also controls most nematodes and fungi that cause damping-off. Write

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Carlots, bulk, 80 cubic yards, \$2.75 yard.
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FOR SPRING PLANTING

Our production of Evergreen grafts for this coming winter will be on a greatly reduced basis in an effort to save fuel. We still have the assortment as listed below, but we do not expect that there will be any trees left after the first of the year. We urge you to send in your reservation now so that you will receive the grafts at the proper planting time next spring.

Customers who have been using Hill Juniper Grafts year after year well know the superior quality of these trees and the uniformly satisfactory results which follow the planting of these thrifty plants. Our grafts are all grafted on understocks of the proper varieties, either *Chinensis* or *Virginiana*, stock is knocked out of the pots and the trees are individually wrapped in paper, reaching you in ideal condition for planting directly into field rows.



\$28.00 per hundred

\$250.00 per thousand

Blue Column Chinese Juniper
 Keteleer Juniper
 Blue Sargent Juniper
 Green Sargent Juniper
 Vase-Shaped Prostrate Juniper
 Japanese Juniper (*Procumbens*)
 Von Ehron Juniper
 Chandler's Silver Juniper
 Silver Glow Juniper
 Meyer Juniper
 Hillbush Juniper (*Virginalis* Dark Green)
 Hillbush Juniper (*Virginalis* Very Dark Green)
 Burk Juniper
 Canaert Juniper
 Silver Juniper (*Glauca*)
 Hill Dundee Juniper
 Blue Coast Juniper (*Horizontalis Glauca*)

25 of the same variety at the 100 rate—250 at 1000 rate

In addition to the above we have a wide variety of other lining-out Evergreens, seedlings, once transplanted and twice transplanted stock. If you do not have a price list, let us send you a copy.

D. HILL NURSERY COMPANY

Evergreen Specialists

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Largest Growers in America

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